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# Index to Volume XXV.

January number begins on page.....	I
February number begins on page.....	81
March number begins on page.....	160
April number begins on page.....	241
May number begins on page.....	322
June number begins on page.....	401
July number begins on page.....	481
August number begins on page.....	561
September number begins on page.....	641
October number begins on page.....	721
November number begins on page.....	802
December number begins on page.....	881

- About Gold, 694.  
Abscess Treatment, 293.  
Accurate Fitting Dowels, 104.  
Acquired Malformation, 126.  
Action of Arsenic, 770.  
Action of Current, 486.  
Adams, G. A., Discussion, 840.  
Address, 604.  
    President's, 25, 136.  
Adenoids, 187.  
Adrenalin, 401.  
    Chemical Properties of, 47.  
    Constitution of, 47.  
    in Dentistry, 766.  
    New Hemostatic, 45.  
    Physiological Properties of, 48.  
    Preparation of, 46.  
    Salts, 47.  
    Uses of, 769.  
Advantages of Hand Pressure in the Introduction and Condensation of Cohesive Gold Fillings, 687.  
    of Pressure Anaesthesia, 847.  
Advertising, 457, 459.  
    a Vicarious Duty, 674.  
    Dentists, 453.  
    Importance of Ethical, 683.  
    Varying Modes of, 676.  
Ainsworth; Discussion, 931.  
Alabama State Dental Society, 674.  
Alameda County Dental Society, 880.  
All Porcelain Crown Using an American Pinless Tooth for a Basis, 733.  
Allen, W. D., A New and Effective Mode of Treating Aluminum in Prosthetic Dentistry, 173.  
Alloy and Mercury, Proportion of, 748.  
    Qualities of a Good, 748.  
Aluminum in Prosthetic Dentistry, a New and Effective Mode of Treating, 173.  
Alveolar Process and Adjacent Tissue; Normal and Pathological Anatomy of the, 339.  
Amalgam, Copper, 703.  
    Fillings, Requirements for Perfecting, 744.  
    Influence of, 508.  
    Objectionable Characteristics of, 744.  
    Stains in Teeth, 212.  
American Medical Association, 320.  
American Pinless Tooth for a Basis, and All Porcelain Crown Using an, 733.  
    Society of Orthodontists, 25, 110, 123, 160, 270, 339, 433, 439, 493, 561, 572, 639, 803, 876, 957.  
Anatomical Arrangement of Artificial Teeth, 81.  
Anatomy, 720.  
    and Histology of the Mouth and Neck, 316.  
    of Nasal Tract, 805.  
    of the Alveolar Process and Adjacent Tissue, Normal and Pathological, 339.  
Anderson, G. A., In Memoriam of, 155.  
Angle, E. H., Art in Relation to Orthodontia, 647.  
    Discussion, 121, 195, 285, 449, 581, 671.  
    President's Address, 25.  
Annual Banquet, Central Dental Association, 159.  
Answers to Questions Prescribed by Dental State Boards, 309.  
Anterior Crowns, 106.  
Antra, Cases of Rapid Healing of, 133.  
    Simultaneous Diseases of Both, 143.  
Antral Diseases, Treatment of, 135.  
Antrum, Disease of the, 643, 644.  
    Necrotic Bone in Diseases of the, 133.  
    of Highmore, Empyema of the, 130.  
    Relation of the Ethmoid to the, 132.  
    the, 757.  
Appliances Alone and in Combination, Fixed and Removable, 439.  
Application of the Davis Crown, 169.  
    of the Logan Crown, 171.  
Archite, 704.  
Arkansas State Board of Dental Examiners, 399, 878.  
    State Dental Association, 391, 396.  
Arnold, Otto, In Memoriam of, 637.  
Arsenic, Action of, 770.  
    in Cement Powders, 761.  
    Not a Pulp Preserver, 771.  
    Objections to the Use of, 772.  
    Pulp Removal Without, 871.  
Arsenical Treatment of Exposed Pulp, 870.



- Arsenious Oxide in the Extirpation of the Dental Pulp; a Plea for the Less Frequent Use of, 770.
- Art in Dentistry, 70.
- in relation to Orthodontia, 646.
- Artificial Teeth, Anatomical Arrangement of, 81.
- Teeth, Stress Exerted Upon, 84.
- Ash, C. F., Discussion, 230, 301.
- Asheville, 779.
- Aseptic Methods Easily Obtained, 595.
- Aseptic Towels for Dental Purposes, 942.
- Attachments of Davis Crowns to Badly Decayed Roots, 728.
- Authors' Rights, 775.
- Badly Decayed Roots; Permanent Attachment of Davis Crowns to, 728.
- Bailey, F. J., Disease of the Antrum, 644.
- Bake, Final, 328.
- Primary, 327.
- Baker, Discussion, 217.
- Band for Preserving the Teeth, The, 887.
- Band, Iridio Platinum; Post Platinum, 17.
- Bands, Fitting, 924.
- Banzhaf, H. L., The Electrolytic Migration of Remedial Agents, 484.
- Barker, D. W., Bromo Chloron, the New Disinfectant, 291.
- Discussion, 298, 705.
- Barker, W. H. H., Celluloid, 549.
- Barnes, V. E., Discussion, 31, 448, 580, 670.
- Barrett, W. C., In Memoriam of, 786.
- Resolutions of Respect to, 954.
- Basis, An All Porcelain Crown Using an American Pinless Tooth for a, 733.
- Beach, J. R., A Dental Phenomenon, 9.
- Belden, R. K., A New Method of Crowning Badly Broken Down Bicuspid Using Davis Crowns, 732.
- Bentley, C. E., Porcelain Inlays and Their Limitations, 515.
- Beta Eucaïn, 150.
- Hydrochlorate, 625.
- Bicuspid and Molar Crowns, 323.
- Crowns, 107.
- Bicuspid, Distal Movement of Molars and, 433.
- Using Davis Crowns, a New Method of Crowning Badly Broken Down, 732.
- Bigelow, A. T., A New Mallet for Gold, 244.
- Bite and Impression, 104.
- Cases, Closing, 40.
- Taking the, 86.
- Teeth Short; Reply to Dr. Haskell, 72.
- Bodies, Foundation and Enamel, 328.
- Body, Mixing, 253.
- One Grade of, 323.
- Bogue, E. O., Discussion, 520, 582.
- Book Reviews:
- A Manual of the Injuries and Surgical Diseases of the Face, Mouth and Jaws, 73.
- A Manual on Dental Metallurgy, 628.
- Anatomy, 720.
- Anatomy and Histology of the Mouth and Neck, 316.
- Answers to Questions Prescribed by Dental State Boards, 309.
- Grant's Oral Surgery, 719.
- Handbuch der Zahnheilkunde, 473.
- Micology of the Mouth, 950.
- Notes on Materia Medica, Pharmacology and Therapeutics, 471.
- Success in Dental Practice, 629.
- The Histology and Patho-Histology of the Teeth and Associated Parts, 946.
- Boom, H. H., About Gold, 694.
- Boston and Tufts Dental Alumni Association, 931.
- Bouche, L. F., Celluloid, 306.
- Boylhart, Discussion, 611.
- Brady, W. J., Discussion, 117, 197, 286, 449, 571, 579.
- Some Observations on Mouth Breathing, 803.
- Breakfast Foods, 923.
- Brewster, R. C., Discussion, 298, 301.
- Bridge and Partial Plates, Combination, 41.
- Bridge Tooth, A, 100.
- Bridge Work, 703.
- Choice of Methods in, 34.
- Dangers of, 291.
- Practical, 33.
- The Davis Crown in, 724.
- Uses for, 37.
- Without Mutilating the Supporting Teeth, 177.
- Brigham, Discussion, 268.
- Brockway, A. H., Discussion, 54, 526.
- Bromo Chloron, Chemistry of, 291.
- the New Disinfectant, 291.
- Therapeutic Effects of, 292.
- Broomell, I. N., Anatomy and Histology of the Mouth and Neck, 316.
- Brophy, T. W., Discussion, 521.
- Brophy's Operation, 765.
- Bryant, E. A., Advertising Dentists, 453.
- Discussion, 57, 918.
- Practical Bridge Work, 33.
- Bryant, I. S., Extension for Prevention, 750.
- Buffalo Meetings, The, 941.
- Burbridge, Discussion, 266.
- Business Man in Dentistry, The, 371.
- Byers, J. M., Discussion, 705.
- Porcelain Corners Retained by Porcelain Pins, 689.
- California State Dental Society, 79, 158, 237, 317, 391, 474, 478.
- Campbell, W. A., In Memoriam of, 875.
- Canals, Treatment for Putrescent Pulp, 150.
- Cap Crown with Uniform Cusp Reinforcement, A Gold, 726.
- Capon, R. J., Discussion, 267.
- The Porcelain Jacket Crown, the Porcelain Cup Crown, 255.
- Care of Instruments, 294.
- Carlton, H. P., Discussion, 862.
- Carmody, T. E., Etiology and Surgical Treatment of Congenital Cleft Palate, 763.
- Carving Teeth in Technics, Use of Talc for, 150.
- Cases of Rapid Healing of Antra, 133.
- Casting, 175.
- Casto, Discussion, 120, 195, 447.
- Cataphoresis, 703.
- Cauldwell Interrupter, 221.
- Cause of High Vault, 818.
- of Narrowing of Upper Arch, 516.
- Causes and Effects of Mouth Breathing, 810.
- Cavities for Gold, Preparation of, 510.
- Small Occlusal, 502.
- Small Proximo-Occlusal, 503.
- Cavity Margins, Outline of, 746.
- Preparation, 690.
- Celluloid, 156, 306, 380, 382, 548.
- Cement Powders, Arsenic in, 761.
- Central Dental Association Annual Banquet, 159.
- of Northern New Jersey, 200, 462, 694, 697.
- Michigan Dental Association, 318, 392.
- Characteristics and Manipulation of Porcelain Bodies, Composition, 323.
- Changes in the New Jersey Board, 469.
- Channing, W., Discussion, 145.
- Chemical and Physical Properties of Hydrogen Dioxide, The, 200.
- Properties of Adrenalin, 47.
- Chemistry of Bromo Chloron, 291.
- Chloropercha, Use of, 421.
- Choice of Methods in Bridge Work, 34.
- Clark, F. Y., In Memoriam of, 874.
- Clasp Denture, 38.
- Cleanliness in Dental Practice, 294.
- Cleft Palate, Etiology and Surgical Treatment of, 763.
- Operations on, 764.
- Chewing Gum, 924.
- Clinics and Commercialism, 782.
- Close Bite Cases, 40.
- Cobb, F. C., Discussion, 145.
- Empyema of the Antrum of Highmore, 130.
- Cocaine Hydrochlorate, 487.
- in Dentistry, 641.
- Cohesive Gold Fillings; The advantages of Hand Pressure in the Introduction and Condensation of, 687.
- Colleges and Examining Boards, Responsibility of, 681.



- Color, Selection of, 253.  
 Colorado State Board of Dental Examiners, 477, 878.  
   State Dental Association, 79, 158, 237, 317, 391, 474, 478, 640, 735, 744, 750, 751, 755, 761, 763, 766, 770.  
 Coloring Matter, 247.  
 Combination Bridge and Partial Plates, 41.  
 Combs, H. J., The Davis Crown in Bridge Work, 881.  
 Comment on Dr. Price's Report of Root Filling Test, 884.  
 Commercialism and Clinics, 782.  
 Comparative Durability of Gold Fillings, 69.  
 Composition Characteristics and Manipulation of Porcelain Bodies, 323.  
 Congenital Cleft Palate, Etiology and Surgical Treatment of, 763.  
   Malformation, 125.  
 Connecticut Dental Commissioners, 397, 797.  
   Odontological Society, 396.  
   State Board, Resignation From the, 544.  
   State Dental Association, 79, 158, 237, 317, 318.  
 Conservatism, 702.  
 Considerations Pertaining to Immediate Root Filling, Some, 332.  
 Constitution of Adrenalin, 47.  
 Contraction and Warpage, Experiments in Vulcanite, To Test, 422.  
 Copeland, R. S., Discussion, 196.  
   Nasal Occlusion and Septal Deviation in Their Relation to Antral Development and Facial Expression, 123.  
 Copper Amalgam, 703.  
 Cornell, H. J., The Davis Crown in Bridge Work, 724.  
 Correction, A, 791.  
 Correspondence:  
   A Correction, 791.  
   Celluloid, 156, 306, 380, 548.  
   Mallet of Gold, 383.  
   Should Permanent Teeth be Filled with Gold? 156.  
   The Tesla Coil in X Ray Work, 379.  
   Trained Dental Nurses, 633.  
 Council, The, 780.  
 Court, Opinion of the, 62.  
 Crossland, J. H., Advertising a Vicarious Duty, 674.  
 Crown in Furnace, Placing, 330.  
   in Furnace, Supporting, 329.  
   Possibility of the Davis, 13.  
   Preparation of, 252.  
   The Porcelain Cup, 255.  
   The Porcelain Jacket, 255.  
   Using an American Pinless Tooth for a Basis, Using an All Porcelain, 733.  
 Crowning Badly Broken Down Bicuspid, Using Davis Crowns; A New Method of, 732.  
   of Fractured Roots, Successful, 730.  
 Crowns, Anterior, 106.  
   Bicuspid, 107.  
   Dowel, 414, 419.  
   for Bicuspids, 260.  
   Molar, 108.  
   Molar and Bicuspid, 22.  
   Mounting With Chloroperccha, 421.  
   Mounting With Rubber Tissue, 421.  
   Mounting with Shellac or Sandarac, 421.  
   Porcelain, 18, 102, 161, 246.  
   Shellac or Telescope, 415, 419.  
   the Finishing, Polishing and Mounting of, 405.  
 Crown Work, Principles and Practice of, 18, 102, 161, 246, 323, 405.  
 Cryer, M. A., Discussion, 285.  
   Normal and Pathological Anatomy of the Alveolar and Adjacent Tissue, 339.  
 Cup Crown, The Porcelain, 255.  
 Current, Action of, 486.  
 Curry, J., Discussion, 846.  
 Cusp Reinforcement; A Gold Cap Crown With Uniform, 726.  
 Custer, L. E., The X Ray in Dentistry, 219.  
   Dangers of Bridge Work, 602.  
 Davis, A. N., Anatomical Arrangement of Artificial Teeth, 81.  
 Davis Crown, Application of the, 169.  
   in Bridge Work, The, 724, 889.  
   Rapid Method of Setting, 14.  
   Crowns, A New Method of Crowning Badly Broken Down Bicuspids Using, 732.  
   to Badly Decayed Roots, Permanent Attachment of, 728.  
 Davis, W. C., Adrenalin in Dentistry, 766.  
   Therapeutics, 401.  
 D. D. S. Degree, Recognition by the American Medical Association of the, 481.  
   Recognized, 538.  
 Death of Dr. Taft, 873.  
 Decayed Roots, Permanent Attachment of Davis Crowns to Badly, 728.  
 Deciduous Molars, Treatment of, 50.  
   Teeth, Filling Canals in, 525.  
 Deductions from Test Fillings, 746.  
 Deformities of the Superior Maxilla from the Standpoint of the Rhinologist, 180.  
 Delaware State Dental Society, 240, 475, 639.  
 Daly, W., Discussion, 927.  
 Dental Arch, Effects of Mouth Breathing on the, 812.  
   Arch, The, 497.  
   Arches, Effect of Compression of, 495.  
   Colleges to Be Tested by the National Association of Dental Examiners; Reputability of, 303.  
   Degree; Medical Recognition of the, 538.  
   Illustrations; The Requirements for, 714.  
   Law, 912.  
   Law for Hawaii, 470.  
   Manufacturers' Exhibit, 149.  
   Metallurgy, A Manual on, 628.  
   Nurse Advocated, 538.  
   Nurses, Trained, 633.  
   Office Robbed, 470.  
   Parlor Advertisements, 461.  
   Phenomenon, A, 9.  
 Dental Practice, Cleanliness in, 294.  
   in New Zealand, 150.  
   Success in, 629.  
   Pulp, a Plea for the Less Frequent Use of Arsenious Oxide in the Extirpation of the, 770.  
   State Boards; Answers to Questions Prescribed by, 309.  
   Society Reports from a Reader's Standpoint, 241.  
   Statutes, 899.  
 Dentifrices, 924.  
 Dentifrices and Mouth Washes, 907.  
 Dentigerous Cysts, 134.  
 Dentist in Relation to Orthodontia, The, 617.  
   Should Not Do; What a, 377.  
 Dentistry, A New and Effective Mode of Treating Aluminum in Prosthetic, 173.  
   Adrenalin, 766.  
   An era in, 870.  
   Art, in, 70.  
   Cocaine in, 641.  
   Germicides in, 626.  
   The Business Man in, 371.  
   The X Ray in, 219.  
 Dentists, Advertising, 453.  
   Women Always Ethical, 680.  
 Dentition of Man, 563.  
 Denture, Clasp, 38.  
 Deviations of the Nasal Septum, 187.  
 Dewey, M., Discussion, 447.  
 Diagnosis by Antral Illumination, 131.  
 Dinner to Dr. Stockton, 68.  
 Disease of the Antrum, 643, 644.  
 Diseases of the Bones of the Face; Syphilitic and Other Destructive, 2.  
 Disinfectant, The New, Bromo Chloron, 291.  
 Distal Movement of Molars, 436.  
   and Bicuspids, 433.  
 Dowel Crowns, 414, 419.  
   Plate and, 163.  
 Dowels, Accurate Fitting, 104.  
 Dr. Bonwill's Office, A Visit to, 82.  
 Dr. Flagg, Death of, 939.  
 Dr. Taft, Death of, 873.  
 Drug Aspect of Lesions of the Gums, The, 903.  
 Early Filling, The Reason for, 513.  
 Easily Attained Aseptic Methods, 595.  
 Eastern Dental Society of the City of New



- York, 80, 593.  
 Indiana Dental Association, 395.  
 Eaton, Discussion, 216.  
 Editorial:  
   A Society's Rights to Its Proceedings, 776.  
   A Solution for the License Interchange Problems, 466.  
   A Test for Examining Boards, 305.  
   An Era in Dentistry, 870.  
   Arsenical Treatment of Exposed Pulp, 870.  
   Authors Rights, 775:  
     D. D. S. Recognized, 538.  
     Death of Dr. Taft, 873.  
     Dinner to Dr. Stockton, 68.  
     Dr. J. Foster Flagg Dead, 939.  
     How to Obtain Good Illustrations, 716.  
     I Did That Ten Years Ago, 147.  
     Interchange of Licenses Between New York and New Jersey Suspended, 63.  
     Justice to Dr. N. S. Jenkins, 619.  
     Medical Recognition of the Dental Degree, 538.  
     New Jersey Dental Law Sustained, 540.  
     Orthodontia as a Specialty, 616.  
     Pressure Anaesthesia for Painless Pulp Removal, 872.  
     Property Rights in Society Papers, 775.  
     Pulp Removal with Arsenic, 871.  
     Reputability of Dental Colleges to Be Tested by the National Association of Dental Examiners, 303.  
     The Business Man in Dentistry, 371.  
     The Dentist in Relation to Orthodontia, 617.  
     The Great Odontographic Society Meetings, 68, 234.  
     The Orthodontist and the Dentist, 615.  
     The Publisher's Rights, 777.  
     The Requirements for Dental Illustrations, 714.  
     The Trained Dental Nurse, 539.  
     Trained Dental Nurse Advocated, 538.  
 Education, Value of Early, 679.  
 Effect of Compression on Dental Arches, 495.  
 Effects of Excess of Uric Acid, 752.  
   of Mouth Breathing on the Dental Arch, 812.  
 Efficient Mode of Treating Aluminum in Prosthetic Dentistry, A New and, 173.  
 Electric Furnaces, 338.  
 Electrolytic Migration of Remedial Agents, The, 484.  
 Eleven Factors Tending to Maladaptation of Vulcanite Plates, 488.  
 Embryological Facts, 125.  
   Origin of Facial Deformities, 124.  
 Empyema of the Antrum of Highmore, 130.  
 Enlarged Tonsils, 187.  
 Environment, Influence of, 183.  
 Era in Dentistry, An, 870.  
 Ether Vibrations, 219.  
 Ethical Advertiser, The, 460.  
 Etiology and Surgical Treatment of Congenital Cleft Palate, 763.  
 Etiology of Cleft Palate, 763.  
   of Malformation, 124.  
 Evils of Faulty Mastication, 501.  
 Evils of Prepared Food, 904.  
 Examining Boards, A Test of, 305.  
   Responsibility of Colleges and, 681.  
   The Filling of Root Canals, 936.  
 Exclusive Contributions:  
   A Dental Phenomenon, 9.  
   A New Mallet for Gold, 244.  
   Action of Current, 486.  
   Adrenalin, 401.  
   Cocaine Hydrochlorate, 487.  
   Comment on Dr. Price's Report of Root Filling Test, 884.  
   Cocaine in Dentistry, 641.  
   Dental Society Reports from a Reader's Standpoint, 241.  
   Disease of the Antrum, 643, 644.  
   Extraction, 404.  
   For Sensitive Dentine, 403.  
   Formations of Ions, 485.  
   Osmosis, 486.  
   Painless Pulp Extirpation, 402.  
   Recognition of the D.D.S. Degree by the American Medical Association, 481.  
   Reply to Mr. Fleck, 885.  
   Report on Root Filling Test, 881.  
   Syphilitic and Other Destructive Diseases of the Bones of the Face, 4.  
   The Band for Preserving the Teeth, 887.  
   The Electrolytic Migration of Remedial Agents, 484.  
   Therapeutics, 401.  
   Types of Conductors, 484.  
 Exercise, 926.  
 Exhibit, Dental Manufacturers, 149.  
 Experiments in Immediate Root Filling, 833.  
   In Vulcanite to Test Contraction and Warpage, 422.  
 Extension for Prevention, 603, 750.  
 Extirpation of the Dental Pulp, A Plea for the Less Frequent Use of Arsenious Oxide in the, 770.  
 Extraction, 404.  
   For Regulation, 586.  
 Facial Deformities; Embryological Origin of, 124.  
 Facing, 104.  
   Soldering, 106.  
 Facings Condemned; Methods of Requiring Soldered, 35.  
 Farley, W., The Band for Preserving the Teeth, 887.  
 Faught, A., Discussion, 31.  
 Faults in Teaching of Orthodontia, 115.  
 Feldspar, 247.  
 Ferris, H. C., Discussion, 298, 708.  
 Fillebrown, T., Discussion, 140.  
 Filling Canals in Deciduous Teeth, 525.  
 Filling, Making the, 749.  
   of Root Canals, The, 936.  
   Teeth, 702.  
 Final Bake, 328.  
 Finishing, Polishing and Mounting of Crowns, The, 405.  
 Finsen Ray, The, 908.  
 First District Dental Society; State of New York, 879, 960.  
 First Molar, Malposition of the, 433.  
   Permanent Molar, The, 735.  
 Fisher, Discussion, 464.  
 Fitting Bands, 924.  
 Fixed and Removable Appliances; Alone and in Combination, 439.  
   Bridge, Restoring Facing to, 541.  
 Flagg, J. F. Dead, 939.  
 Fleck, H., Arsenic in Cement Powders, 761.  
 Flint, Discussion, 448.  
 Florida State Dental Society, 79, 158, 237, 317, 391, 394.  
 Flux, 247.  
 Food, Evils of Prepared, 904.  
 Foods, Breakfast, 923.  
   Prepared, 926.  
 For Sensitive Dentine, 403.  
 Forma Percha, 834.  
 Formaldehyde, 596.  
 Formalin, 626.  
 Formation of Ions, 485.  
 Foundation and Enamel Bodies, 328.  
 Fourth International Congress, 792.  
 Fractured Roots, Successful Crowning of, 730.  
 Furnace, Heating, 330.  
   The, 176.  
 Furnaces, Electric, 333.  
   Gas, 338.  
   Gasoline, 335.  
 Fusing Points, 250.  
   the Porcelain Pin, 691.  
 Gallaudet, B. B., Anatomy, 720.  
 Gallie, D. M., Discussion, 854.  
 Gane, E. H., Discussion, 202.  
   Liquid Oxygen, 697.  
   The Chemical and Physical Properties of Hydrogen Dioxide, 200.  
 Gas Furnaces, 338.  
 Gasoline Furnaces, 335.  
 Georgia State Dental Society, 79, 158, 237, 317, 391, 474, 478.  
 Germicides in Dentistry, 626.  
 Gillette, H. W., Discussion, 524.  
 Gilpin, A. W. L., Celluloid, 382.  
 Goadby, K. W., Micrology of the Mouth, 950.



- Gold, A New Mallet for, 244.  
 About, 694.  
 Gold Cap Crown With Uniform Cusp Reinforcement, A, 726.  
 Fillings, 523.  
 Complete Durability of, 69.  
 in Sixth Year Molars, Occlusal Cavities, the Technique of, 508.  
 the Advantages of Hand Pressure in the Introduction and Condensation of Cohesive, 687.  
 in Its Natural State, 695.  
 Inlays, 518.  
 Large Contours Made of, 703.  
 Mallet of, 383.  
 Mining, 695.  
 Properties of, 697.  
 Pure, 332.  
 Should Permanent Teeth be Filled With, 156.  
 Golden Anniversary Celebration, A, 945.  
 Good Illustrations, How to Obtain, 716.  
 Goslee, H. J., Principles and Practice of Crown Work, 18, 102, 161, 246, 323, 405.  
 Gould, H., Discussion, 611.  
 Gout of the Teeth, 753.  
 Gouty Pericementitis, 752.  
 Grant, H. H., Grant's Oral Surgery, 719.  
 Grant's Oral Surgery, 719.  
 Greenbaum, M., Old Thoughts in Relation to Pyorrhea Alveolaris, 599.  
 Grevers, Discussion, 119.  
 Grinding Bicuspids and Molars, Method of, 92.  
 Incisors and Cuspids, Method of, 90.  
 Grove, S. G., In Memoriam of, 390.  
 Gum, Lesions of the, 905.  
 Halsey, W. E., Discussion, 607.  
 Hamlet, F. P., Discussion, 219, 298.  
 President's Address, 136.  
 Hand Pressure in the Introduction and Condensation of Cohesive Gold Fillings, the Advantages of, 687.  
 Handbuch der Zahnheilkunde, 473.  
 Hanning, J. H., Discussion, 717.  
 Harlan, A. W., Discussion, 463, 919.  
 In Memory of Dr. W. C. Barrett, 789.  
 The Drug Aspect of Lesions of the Gums, 903.  
 Harlan, E. H., Discussion, 918.  
 Harper, W. E., Requirements for Perfecting Amalgam Fillings, 744.  
 Harrell, H. B., A Gold Cap Crown with Uniform Cusp Reinforcement, 726.  
 Successful Crowning of Fractured Roots, 730.  
 Hartford Dental Society, 960.  
 Haskell, Reply to Dr., 72.  
 Hatch, H. D., Discussion, 225.  
 How Far Can Surgical Asepsis be Applied to Everyday Dental Practice? 593.  
 Hawaii, Dental Law for, 470.  
 Head, J., Discussion, 30, 49, 847.  
 Heating Furnaces, 330.  
 Heredity, 180.  
 Herren, H. H., In Memoriam of, 77.  
 Hill, O. E., In Memoriam of, 152.  
 Hills, T. O., In Memoriam of, 635.  
 Hillyer, E., Discussion, 56, 612, 708.  
 Hindle, F. L., Discussion, 843.  
 President's Address, 837.  
 Histology and Patho-Histology of the Teeth and Associated Parts, The, 946.  
 Histology of the Mouth and Neck, Anatomy, 316.  
 Hopkins, A., Orthodontia from the Standpoint of the Student, 110.  
 How Far Can Surgical Asepsis be Applied to Everyday Dental Practice, 593.  
 How to Obtain Good Illustrations, 716.  
 Human Dentition, Variation in, 561.  
 Humphries, J., Variation in Human Dentition, 561.  
 Hunt, G. E., Discussion, 867.  
 Hurlbut, J. S., In Memoriam of, 75.  
 Hutchinson, R. G., Jr., Discussion, 301, 706.  
 Hydrogen, 201.  
 Dioxide, 201, 203.  
 Manufacture of, 202.  
 Properties of, 205.  
 The Chemical and Physical Properties of, 200.  
 Hypertrophies, 187.  
 I Did That Ten Years Ago, 147.  
 Idaho State Board of Dental Examiners, 559, 640.  
 Dental Society, 79, 158, 237, 317, 391, 474.  
 Illinois State Board of Dental Examiners, 397, 795.  
 Dental Society, 391, 393.  
 Immediate Root Filling: Some Considerations Pertaining to, 832.  
 Importance of Ethical Advertising, 683.  
 of Knowledge of Occusion, 113.  
 Impression and Bite, 104.  
 Indiana State Dental Association, 237, 239, 317, 391, 474, 478.  
 Indications for Porcelain Inlays, 517.  
 Indications for Porcelain Jackets, 165.  
 Influence of Amalgam, 508.  
 of Disease on Deformities, 185.  
 Influences of Environment, 183.  
 Inglis, O. E., Discussion, 849.  
 Some Considerations Pertaining to Immediate Root Filling, 832.  
 Inherited Tendencies, 181, 182.  
 Inlays, Gold, 518.  
 In Memoriam:  
 Anderson, G. A., 155.  
 Arnold, O., 637.  
 Barrett, W. C., 786, 954.  
 Campbell, W. A., 875.  
 Clark, F. Y., 874.  
 Grove, S. G., 390.  
 Herron, H. H., 77.  
 Hill, O. E., 152.  
 Hills, T. O., 635.  
 Hurlbut, J. S., 75.  
 Lyon, W. A., 636.  
 Nelson, E., 547.  
 Odell, F. M., 954.  
 Palmer, S. B., 384.  
 Starr, F. J., 153.  
 Taft, J., 951.  
 Wertz, D. C., 790.  
 White, D. C., 637.  
 Instruments, Care of, 294.  
 Sterilized, 595.  
 Institute of Dental Pedagogics, 558, 876, 956.  
 Interchange of License Offered by New Jersey, 940.  
 Interchange of Licenses Between New York and New Jersey Suspended, 63.  
 Interchange of Medical Licenses, 901.  
 International Congress, Membership in, 943.  
 Interstate Dental Fraternity, 374, 391, 469, 474, 785, 852, 877.  
 Still Growing, 543.  
 Interstate Reciprocity in Dental Licensure, The Question of, 896.  
 Investment, 105, 173.  
 Ions, Formation of, 485.  
 Irwin, A., Discussion, 845.  
 Jacket Crown in Detail, The, 258.  
 Crown, the Porcelain, 255.  
 Crown, Use of, 255.  
 Jackets, Indications for Porcelain, 165.  
 Jarvie, W., Discussion, 55, 527.  
 Jaws of the Bull Dog, 277.  
 Jenkins, N. S., Justice to, 619.  
 Johnson, C. N., Discussion, 532.  
 Success in Dental Practice, 629.  
 The Treatment of Deciduous Molars, 501.  
 Johnson, J. A., Cocaine in Dentistry, 641.  
 Justice to Dr. N. S. Jenkins, 619.  
 Kansas State Board of Dental Examiners, 319, 400.  
 State Dental Association, 393.  
 Kaolin, 247.  
 Kells, C. E., Reply to, 543.  
 Repairing Fractured Teeth, 894.  
 The Tesla Coil in X-Ray Work, 379.  
 Kemple, Discussion, 500.  
 Kentucky State Dental Association, 317, 318, 391, 399.  
 Ketcham, A. H., The First Permanent Molar, 735.



- Kilmer, F. B., Aseptic Towels for Dental Purposes, 942.
- Kirk, E. C., A Comparative Study of Mandibular Protrusion, 270.  
Discussion, 118, 286, 921.  
The Question of Interstate Reciprocity in Dental Licensure, 896.
- Kohler, C. H., Discussion, 196.  
The Deformities of the Superior Maxilla from the Standpoint of the Rhinologist, 180.
- Kresamin, 627.
- Large Contours Made of Gold, 703.
- Lathe Bath, A Simple, 470.
- Law for Hawaii, Dental, 470.
- Leg Injured by Tooth Extraction, 542.
- Leroy, L. C., Discussion, 463, 613, 925.
- Lesions of the Gums, 905.
- Lesions of the Gums, The Drug Aspect of, 903.
- Lester, D. D., A Bridge Tooth, 100.  
Celluloid, 308.
- License Interchange Problem, A Solution for the, 466.
- Licenses Between New York and New Jersey Suspended, Interchange of, 63.
- Licenses, Interchange of Medical, 901.
- Liquefying Gases, Method of, 698.
- Liquid Gases, Medical Uses of, 701.  
Oxygen, 697.  
Oxygen and Liquid Air, 700.
- Littig, J. B., Discussion, 570, 607.  
Simple Methods Employed in Orthodontia, 585.
- Logan Crown, Application of the, 171.
- Los Angeles Association of Dental Alumni, 80.
- Louis, L. S., Discussion, 119.  
Distal Movement of Molars and Bicuspsids, 433.
- Lucky, B. F., Discussion, 213, 462, 920.
- Ludy, R. B., Answers to Questions Prescribed by Dental State Boards, 309.
- Lyon, W. A., In Memoriam of, 636.
- Magee, J. M., Comment on Dr. Price's Report of Root Filing Test, 884.
- Maine Dental Society, 158, 237, 317, 391, 393, 470, 474, 909.
- Making the Fillings, 749.
- Malformation, Acquired, 126.  
Congenital, 125.  
Etiology of, 124.
- Malformations, Relation of the Antrum to, 128.
- Mallet for Gold, A New, 244.  
of Gold, 383.
- Malocclusion of the Teeth Among the Ancient Peruvians, 493.
- Malposition of the First Molar, 433.
- Mandibular Protrusion, A Comparative Study of, 270.
- Manipulation of Porcelain Bodies, Composition Characteristics and, 323.
- Manual of the Injuries and Surgical Diseases of the Face, Mouth and Jaws, 73.  
On Dental Metallurgy, 628.
- Manufacture of Hydrogen Dioxide, 202.
- Manufacturers' Exhibit, Dental, 149.
- Marshall, J. S., A Manual of the Injuries and Surgical Diseases of the Face, Mouth and Jaws, 73.
- Maryland State Board of Dental Examiners, 317, 399, 798.
- Maryland State Dental Association, 79, 237, 240.
- Massage, 925.
- Masticating Power of the Jaws, The, 83.
- Mastication, Evils of Faulty, 501.  
Stress of, 532.
- Massachusetts Board of Registration in Dentistry, 238, 480, 796.  
Dental Society, 237, 239, 317, 391, 474, 477.
- Materia Medica, Pharmacology and Therapeutics, Notes on, 471.
- Matrix, The, 690, 747.  
Without Band, Platinum, 16.
- Maxillary Sinus, The, 128.
- McCurdy, S. L., Syphilis and other Destructive Diseases of the Bones of the Face, 4.
- Medical Recognition of the Dental Degree, 538.  
Uses of Liquid Gases, 701.
- Meeker, C. A., Discussion, 44, 202, 525, 841.  
Membership in International Congress, 943.
- Merritt, A. H., Cleanliness in Dental Practice, 294.
- Merritt, C. H., President's Address, 909.
- Method of Crowning Badly Broken Down Bicuspsids Using Davis Crowns, A New, 732.  
of Grinding Bicuspsids and Molars, 92.  
of Grinding Incisors and Cuspsids, 90.  
of Liquefying Gases, 698.  
of Making Skiagraphs, 224.  
of Retaining Porcelain Corners, 692.  
of Sterilizing Root Canals, 833.
- Methods Employed in Orthodontia, Simple, 585.  
Requiring Soldered Facings Condemned, 35.
- Michigan Dental Association, 391, 396, 474, 479.  
State Board of Dental Examiners, 240, 396.
- Micology of the Mouth, 950.
- Miles, Discussion, 934.
- Mills, C., Disease of the Antrum, 643.
- Mining Gold, 695.
- Minnesota State Board of Dental Examiners, 794.  
State Dental Association, 79, 158, 237, 317, 391, 471, 639, 640.
- Mississippi Dental Association, 79, 159, 237, 317, 391, 640.
- Missouri State Dental Association, 79, 158, 237, 317, 391, 395.
- Mixing Body, 253.
- Mode of Treating Aluminum in Prosthetic Dentistry, A New and Effective, 173.
- Models on the Articulator, Mounting, 88.
- Molar and Bicuspid Crowns, 22.  
Crowns, 103.  
The First Permanent, 735.
- Molars and Bicuspsids, Distal Movement of, 433.  
Distal Movement of, 436.  
Treatment of the Sulci in Sixth Year, 511.
- Monroe, Discussion, 32, 438, 581.
- Morgan, T. H., Celluloid, 156.
- Moore, H. J., Bridge Work Without Mutilating the Supporting Teeth, 177.
- Mounting Models on the Articulator, 88.  
of Crowns, the Finishing, Polishing and, 405.  
With Chloropercha, 421.  
With Rubber Tissue, 421.  
With Shellac or Sandarac, 421.
- Mouth and Neck, Anatomy and Histology of the, 316.  
Breathers, Treatment of, 828.  
Breathing, 126.  
Breathing, Causes and Effects of, 810.  
Breathing, Effects of, on the Dental Arch, 812.  
Breathing, Some Observations on, 803.  
Props, 597.  
Washes and Dentifrices, 907.
- Nasal Occlusion and Septal Deviation in Their Relation to Antral Development and Facial Expression, 123.  
Septum, Deviations of the, 187.
- National Association of Dental Examiners, 79, 158, 160, 237, 317, 391, 474, 784, 796, 798.  
Association of Dental Examiners, Reputability of Dental Colleges to Be Tested by the, 303.  
Association of Dental Faculties, 476, 477, 783.  
Dental Association, 79, 158, 237, 317, 391, 474, 475, 780.
- National Dental Association, Southern Branch, 958.  
Society Meetings, 839.
- National's Proceedings, Publication of the, 781.
- Nebraska State Dental Society, 79, 158, 237, 317, 391, 394.
- Neck, Anatomy and Histology of the Mouth and, 316.
- Necrosis, 756.
- Necrotic Bone in Diseases of the Antrum, 133.



- Nelson, Edward, In Memoriam of, 547.  
 New and Effective Mode of Treating Aluminum in Prosthetic Dentistry, 173.  
 New Hampshire State Dental Society, 391, 394.  
 New Hemostatic, Adrenalin, 45.  
 New Jersey Board, Changes in the, 469.  
 New Jersey Dental Law Sustained, 540.  
 New Jersey Offers Interchange of License, 940.  
 New Jersey State Board of Registration and Examination in Dentistry, 398; 479, 795.  
 New Jersey State Dental Society, 79, 158, 237, 317, 391, 474, 475, 896, 903.  
 New Method of Crowning Badly Broken Down Bicuspid Using Davis Crowns, A, 732.  
 New Mexico Board of Dental Examiners, 476.  
 New Orleans Academy of Stomatology, 400, 691.  
 New Orleans College, Resignations From the, 544.  
 New South Wales Dental Defence Association, 544.  
 New York Alumni Chapter of Psi Omega, 294.  
 New York State Dental Society, 79, 158, 237, 239, 317, 391, 392, 832.  
 New Zealand, Dental Practice in, 150.  
 Nodine, A. M., Discussion, 713.  
   The Advantages of Hand Pressure in the Introduction and Condensation of Cohesive Gold Fillings, 687.  
 Normal and Pathological Anatomy of the Alveolar Process and Adjacent Tissue, 339.  
 North Carolina State Board of Dental Examiners, 480.  
 Northeastern Dental Association, 797.  
 Northern Indiana Dental Society, 959.  
 Northern Iowa Dental Society, 639.  
 Notes on Materia Medica, Pharmacology and Therapeutics, 471.  
 Nyman, J. E., Discussion, 854.  
 Objectionable Characteristics of Amalgam, 744.  
 Objections to the Use of Arsenic, 772.  
 Occlusal Cavities, 508.  
 Occlusion and Septal Deviations in Their Relation to Antral Development and Facial Expression, 123.  
   Importance of Knowledge of, 113.  
   Problems in, 29.  
 Odell, T. M., Resolutions of Respect to, 954.  
 Odontographic Society, 68, 159.  
   Society Meeting, The Great, 234.  
 Odontological Society of Western Pennsylvania, 159, 240.  
 Office and Table Linen, 295.  
   Robbed, Dental, 470.  
 Ohio State Board of Dental Examiners, 399, 480, 880.  
   State Dental Society, 79, 80, 158, 237, 317, 392, 474, 639, 880.  
 Oil Colors, Use of, 325.  
 Oklahoma Board of Dental Examiners, 319, 400, 879.  
   Dental Association, 318, 393, 878.  
 Old Thoughts in Relation to Pyorrhea Alveolaris, 599.  
 One Grade of Body, 323.  
 Operations on Cleft Palate, 764.  
 Opinion of the Court, 621.  
 Oral Surgery, 755.  
   Surgery, Grant's, 719.  
 Orthodontia:  
   A Comparative Study of Mandibular Protrusion, 270.  
   Acquired Malformation, 126.  
   Adenoids, Enlarged Tonsils, Hypertrophies, 187.  
   American Society of Orthodontists, 25, 110, 123, 180, 270, 339, 433, 439, 493, 561, 572, 646, 803.  
   Anatomy of Nasal Tract and Physiognomy, 29.  
   And Rhinology, 124.  
   Art in Relation to, 646.  
   A Specialty, 26.  
   Cause of High Vault, 818.  
   Cause of Narrowing of Upper Arch, 816.  
   Causes and Effects of Mouth Breathing, 810.  
   Congenital Malformation, 125.  
   Dentition of Man, 563.  
   Deviations of the Nasal Septum, 187.  
   Distal Movement of Molars, 433.  
   Distal Movement of Molars and Bicuspid, 433.  
   Effect of Compression on Dental Arches, 495.  
   Effects of Mouth Breathing on the Dental Arch, 812.  
   Embryological Facts, 125.  
   Embryological Origin of Facial Deformities, 124.  
   Etiology of Malformation, 124.  
   Extraction for Regulation, 586.  
   Faults in the Teaching of, 115.  
   Fixed and Removable Appliances Alone and in Combination, 439.  
   From the Standpoint of the Student, 110.  
   Heredity, 180.  
   Importance of Knowledge of Occlusion, 113.  
   Influence of Disease on Deformities, 185.  
   Influence of Environment, 183.  
   Inherited Tendencies, 181, 182.  
   Jaws of the Bull Dog, 277.  
   Malocclusion of the Teeth Among the Ancient Peruvians, 493.  
   Malposition of the First Molar, 433.  
   Mouth-Breathing, 126.  
   Nasal Occlusion and Septal Deviation in Their Relation to Antral Development and Facial Expression, 123.  
   Normal and Pathological Anatomy of the Alveolar Process and Adjacent Tissue, 339.  
   President's Address, 25.  
   Problems in Occlusion, 29.  
   Prognathism, 590.  
   Psychic Phenomena, 126.  
   Relation of the Antrum to Malformations, 128.  
   Retrusion of Mandible, 819.  
   Simple Methods Employed in, 585.  
   Some Observations on Mouth Breathing, 803.  
   Supplemental Premolars, 568.  
   Teeth of Peruvians, 496.  
   The Deformities of the Superior Maxilla From the Standpoint of the Rhinologist, 180.  
   The Dental Arch, 497.  
   The First Permanent Molar, 735.  
   Maxillary Sinus, 128.  
   Retrusion of both Jaws with a Single Appliance, 572.  
   The Skulls of the Quichuas, 494.  
   The Teaching of, 27.  
   Temporo-Maxillary Articulation, 825.  
   Thumb Sucking, 824.  
   Treatment of Mouth Breathers, 828.  
   Unsolved Problems in, 28.  
   Variation in Human Dentition, 561.  
   Wolf's Jaws, 279.  
   As a Specialty, 616.  
   Physiognomy and, 29.  
   Rhinology and, 124.  
   The Dentist in Relation to, 617.  
 Orthodontist and the Dentist, The, 615.  
 Osmosis, 486.  
 Osmun, J. A., Discussion, 44.  
 Ottolengui, R., Discussion, 56, 57, 531, 578, 608, 706, 708, 852, 915.  
   The Retrusion of Both Jaws With a Single Appliance, 572.  
   The Technique of Gold Fillings in Sixth Year Molars, Occlusal Cavities, 508.  
 Outlines of Cavity Margins, 741.  
 Oxygen, Liquid, 697.  
 Oxyhydrogen Flame, 24.  
 Paraform, 626.  
 Painless Pulp Removal, 767.  
 Pulp Extirpation, 402.  
 Palmer, S. B., In Memoriam of, 384.  
 Pathological Anatomy of the Alveolar Process and Adjacent Tissue, Normal, 339.  
 Payson, W. S., An All Porcelain Crown Using an American Pinless Tooth for a Basis, 733.  
 Pennsylvania State Board of Dental Examiners, 398, 470, 959.



- State Dental Society, 240, 474, 479.  
 Perfecting Amalgam Fillings; Requirements for, 744.  
 Pericementitis, Gouty, 752.  
 Perlé, Discussion, 60.  
 Permanent Attachment of Davis Crowns to Badly Decayed Roots, 728.  
 Molar, The First, 735.  
 Teeth be Filled with Gold, Should? 156.  
 Pharmacology and Therapeutics, Notes on Materia Medica, 471.  
 Phenomenon, A Dental, 9.  
 Physical Properties of Hydrogen Dioxide, The Chemical and, 200.  
 Physiological Properties of Adrenalin, 48.  
 Pinless Tooth for a Basis on All Porcelain Crown Using an American, 733.  
 Piper, J. R. Discussion, 269, 933.  
 Placing Crown in Furnace, 330.  
 Plate and Dowel, 163.  
 Plates, Combination Bridges and Partial, 41.  
 Platinum Band; Iridio-Platinum Post, 17.  
 Platinum Matrix Without Band, 16.  
 Plea for the Less Frequent Use of Arsenious Oxide in the Extirpation of the Dental Pulp, A, 770.  
 Police Power of the States, 898.  
 Polishing, 175.  
 and Mounting of Crowns, The Finishing, 405.  
 Porcelain, 704.  
 Bodies, Composition, Characteristics and Manipulation of, 323.  
 Corners, Method of Retaining, 692.  
 Corners Retained by Porcelain Pins, 689.  
 Crowns, 18, 102, 161, 246.  
 Crown, Strength of, 261.  
 Inlay Restorations, Including Angles of Incisors and Proximal Marginal Ridges of Bicuspsids, Retention of, 691.  
 Inlays and Their Limitations, 515.  
 Inlays, Indications for, 517.  
 Jacket Crown; the Porcelain Cup Crown, The, 255.  
 Jackets, Indications for, 165.  
 Pin, Fusing the, 691.  
 Porosity, 332.  
 Power Necessary to Masticate Meats, 84.  
 of the Jaw, The Masticating, 83.  
 Practical Bridge Work, 33.  
 Practice in New Zealand, Dental, 150.  
 Premolars, Supplemental, 568.  
 Preparation of Adrenalin, 46.  
 of Cavities for Gold, 510.  
 of Crown, 252.  
 Prepared Foods, 926.  
 President's Address, 25, 136, 909.  
 Pressure Anaesthesia, 773.  
 Advantages of, 847.  
 for Painless Pulp Removal, 872.  
 Prevention, Extension for, 750.  
 Price, W. A., Report on Root Filing Test, 881.  
 Primary Bake, 327.  
 Principles and Practice of Crown Work, 18, 102, 161, 246, 323, 405.  
 Prinz, H., Mallet of Gold, 383.  
 Problems in Occlusion, 29.  
 Prognathism, 590.  
 Properties of Gold, 697.  
 of Hydrogen Dioxide, 205.  
 of Hydrogen Dioxide, The Chemical and Physical, 200.  
 Property Rights in Society Papers, 775.  
 Proportion of Alloy and Mercury, 748.  
 Prosthetic Dentistry, A New and Efficient Mode of Treating Aluminum, 173.  
 Prosthodontia:  
 A Bridge Tooth, 100.  
 Accurate Fitting Dowels, 104.  
 A Gold Cap Crown with Uniform Cusp Reinforcement, 726.  
 An All Porcelain Crown Using an American Pinless Tooth for a Basis, 733.  
 Anatomical Arrangement of Artificial Teeth, 81.  
 A New and Efficient Mode of Treating Aluminum in Prosthetic Dentistry, 173.  
 A New Method of Crowning Badly Broken Down Bicuspsids Using Davis Crowns, 732.  
 Anterior Crowns, 106.  
 Application of the Davis Crown, 169.  
 Application of the Logan Crown, 171.  
 A Visit to Dr. Bonwill's Office, 82.  
 Bicuspid Crowns, 107.  
 Bridge Work Without Mutilating the Supporting Teeth, 177.  
 Casting, 175.  
 Coloring Matter, 247.  
 Composition Characteristics and Manipulation of Porcelain Bodies, 323.  
 Crowns for Bicuspsids, 260.  
 Dowel Crowns, 417, 419.  
 Electric Furnaces, 333.  
 Eleven Factors Tending to Maladaptation of Vulcanite Plates, 488.  
 Experiments in Vulcanite to Test Contraction and Warpage, 422.  
 Facing, 104.  
 Feldspar, 247.  
 Final Bake, 328.  
 Flux, 247.  
 Foundation and Enamel Bodies, 328.  
 Fusing Points, 251.  
 Gas Furnaces, 338.  
 Gasoline Furnaces, 335.  
 Heating Furnace, 831.  
 Impression and Bite, 104.  
 Indications for Porcelain Jackets, 165.  
 Investment, 105, 173.  
 Kaolin, 247.  
 Method of Grinding Bicuspsids and Molars, 92.  
 Method of Grinding Incisors and Cuspsids, 90.  
 Mixing Body, 253.  
 Molar and Bicuspid Crowns, 22.  
 Molar Crowns, 108.  
 Mounting Models on the Articulator, 88.  
 One Grade of Body, 323.  
 Oxhydrogen Flame, 24.  
 Permanent Attachment of Davis Crowns to Badly Decayed Roots, 728.  
 Placing Crown in Furnace, 330.  
 Plate and Dowel, 163.  
 Platinum Band; Iridio Platinum Post, 17.  
 Platinum Matrix Without Band, 16.  
 Polishing, 175.  
 Porcelain Crowns; 18, 102, 161, 246.  
 Porosity, 332.  
 Possibilities of the Davis Crown, 13.  
 Power Necessary to Masticate Meats, 84.  
 Preparation of Crown, 252.  
 Primary Bake, 327.  
 Principles and Practice of Crown Work, 18, 102, 161, 246, 323, 405.  
 Pure Gold, 332.  
 Rapid Method of Setting Davis Crown, 14.  
 Removing Crowns Mounted With Gutta Percha, 422.  
 Repairing Fractured Teeth, 894.  
 Reply to Mr. Fleck, 885.  
 Report on Root Filing Test, 881.  
 Root Preparation, 24.  
 Selecting the Teeth, 89.  
 Selection of Color, 253.  
 Shell or Telescope Crowns, 415, 419.  
 Silica, 247.  
 Soldering, 23.  
 Soldering Facing, 106.  
 Strength of Porcelain Crowns, 261.  
 Stress Exerted Upon Artificial Teeth, 84.  
 Successful Crowning of Fractured Roots, 730.  
 Supporting Crown in Furnace, 329.  
 Taking the Bite, 86.  
 The Davis Crown in Bridge Work, 724, 889.  
 The Finishing, Polishing and Mounting of Crowns, 405.  
 The Furnace, 176.  
 The Jacket Crown in Detail, 258.  
 The Masticating Power of the Jaws, 83.  
 The Porcelain Jacket Crown, the Porcelain Cup Crown, 255.  
 Use of Chloropercha, 421.  
 Use of Jacket Crown, 255.  
 Use of Oil Colors, 325.



- Use of Rubber Tissue, 421.  
 Use of Shellac or Sandarac, 421.  
 Protrusion, A Comparative Study of Madibular, 270.  
 Provost, W. D., Discussion, 299.  
 Psychic Phenomena, 126.  
 Public Schools, 912.  
 Publication of the National's Proceedings, 781.  
 Publisher's Rights, 777.  
 Pullen, H. A., Discussion, 439, 451.  
   Fixed and Removable Appliances, Alone and in Combination, 439.  
 Pulp Canals, Treatment for Putrescent, 150.  
   Exposures, 505.  
   Extirpation, Painless, 402.  
   Mummification, 704.  
   Removal, Painless, 767.  
   Removal; Pressure Anaesthesia for Painless, 872.  
   Removal, Without Arsenic, 871.  
 Pulpless Deciduous Molars, 506.  
 Pulp, Arsenical Treatment of Exposed, 870.  
 Pure Gold, 332.  
 Putrescent Pulp Canals, Treatment for, 150.  
 Pyorrhea Alveolaris, Old Thoughts in Relation to, 599.  
 Remarks On, 751.  
 Qualities of a Good Alloy, 748.  
 Question of Interstate Reciprocity in Dental Licensure, The, 896.  
 Rapid Method of Setting Davis Crowns, 14.  
 Reason for Early Filling, The, 513.  
 Recognition of the D. D. S. Degree by the American Medical Association, 481.  
 Relation of the Antrum to Malformations, 128.  
 Relation of the Ethmoid to the Antrum, 132.  
 Remarks on Pyorrhea, 751.  
 Removable Appliances; Alone and in Combination, Fixed and, 439.  
 Repairing Fractured Teeth, 894.  
 Report of Committee of Second District Dental Society, 152.  
 Reports, From a Reader's Standpoint, Dental Society, 241.  
 Reputability of Dental Colleges to Be Tested by the National Association of Dental Examiners, 303.  
 Requirements for Dental Illustrations, The, 714.  
   for Perfecting Amalgam Fillings, 744.  
 Resignations from the Connecticut State Board, 544.  
 Resignations from the New Orleans College, 544.  
 Resolutions Adopted by the Los Angeles Association of Dental Alumni, 78.  
   Passed by the Massachusetts Board of Registration in Dentistry, 77.  
   Passed by the Valley District Dental Society, 76.  
 Responsibility of Colleges and Examining Boards, 681.  
 Restoring Facing to a Fixed Bridge, 541.  
 Retention of Porcelain Inlay Restorations Including Angles of Incisors and Proximal Marginal Ridges of Bicuspsids, 691.  
 Retrusion of Both Jaws with a Single Appliance, The, 572.  
   of Mandible, 819.  
 Rhein, M. L., Discussion, 59, 529, 928.  
 Rhode Island Dental Society, 79, 80.  
 Richards, W. P., Discussion, 218.  
 Ridgeway, Discussion, 849.  
 Rights in Society Papers, Property, 775.  
 Roberts, W. L., Oral Surgery, 755.  
 Rockwell, W. M., Anatomy, 720.  
 Root, J. P., Discussion, 855.  
 Root Absorption, 522.  
   Canals, Method of Sterilizing, 833.  
   Filling, Experiments in Immediate, 833.  
   Filling of, 936.  
   Filling, Some Considerations Pertaining to Immediate, 832.  
   Preparation, 24.  
 Roots, Permanent Attachment of Davis Crowns to Badly Decayed, 728.  
   Successful Crowning of Fractured, 730.  
 Rubber Tissue, 431.  
 Runkorff Coil, 221.  
 Russell, A. N., Discussion, 298, 300.  
 Sandarac, Use of, 421.  
 Sanger, R. M., Discussion, 216, 852, 914, 923.  
 Sarrazin, J. J., A Correction, 791.  
   Retention of Porcelain Inlay Restorations, Including Angles of Incisors and Proximal Ridges of Bicuspsids, 691.  
 Schwartz, G. W., Possibilities of the Davis Crown, 13.  
 Second District Dental Society, 33, 53, 136, 152, 218, 291, 501, 508, 585, 607, 687, 689, 705.  
 Selecting the Teeth, 89.  
 Selection of Color, 253.  
 Sensitive Dentine, For, 403.  
 Seventh and Eighth District Dental Society of the State of New York, 799.  
 Shell or Telescope Crowns, 415, 419.  
 Shellac, Use of, 421.  
 Sheppard, K. A., Trained Dental Nurses, 633.  
 Shields, N. T., Discussion, 528.  
 Short Bite Teeth; Reply to Dr. Haskell, 72.  
 Should Permanent Teeth be Filled with Gold? 156.  
 Silica, 247.  
 Simple Lathe Bath, A, 470.  
 Simple Methods Employed in Orthodontia, 585.  
 Simpson, R. L., Permanent Attachment of Davis Crowns to Badly Decayed Roots, 728.  
 Simultaneous Diseases of Both Antra, 143.  
 Sixth District Dental Society of the State of New York, 319, 396, 794.  
 Sixth Year Molars, Occlusal Cavities; The Technique of Gold Fillings, in, 508.  
 Skiagraphs, 222.  
   Method of Making, 224.  
 Skulls of the Quichuas, The, 494.  
 Small Occlusal Cavities, 502.  
   Proximo-Occlusal Cavities, 503.  
 Smith, A. H., The Histology and Patho-Histology of the Teeth and Associated Parts, 946.  
 Smith, E. A., A Manual on Dental Metallurgy, 628.  
 Smith, Holly, A Horticulturist, 542.  
 Society Announcements:  
   Alameda County Dental Society, 880.  
   American Medical Association, 320.  
   American Society of Orthodontists, 160, 639, 876, 957.  
   Arizona Board of Dental Examiners, 559.  
   Arkansas State Board of Dental Examiners, 399, 878.  
   Arkansas State Dental Association, 391, 396.  
   California State Dental Society, 79, 158, 237, 317, 391, 474, 478, 640.  
   Central Dental Association Banquet, 159.  
   Central Michigan Dental Association, 318, 392.  
   Colorado State Board of Dental Examiners, 477, 878.  
   Colorado State Dental Association, 79, 158, 237, 317, 391, 474, 478, 640.  
   Connecticut Dental Commissioners, 397, 797.  
   Connecticut Odontological Society, 396.  
   Connecticut State Dental Association, 79, 158, 237, 317, 318.  
   Delaware State Dental Society, 159, 240, 475, 639.  
   Eastern Dental Society; City of New York, 80.  
   Eastern Indiana Dental Association, 395.  
   First District Dental Society of the State of New York, 879, 960.  
   Florida State Dental Society, 158, 237, 317, 391, 394.  
   Fourth International Dental Congress, 792.  
   Georgia State Dental Society, 158, 237, 317, 391, 474, 478.  
   Hartford Dental Society, 960.  
   Idaho State Board of Dental Examiners, 559, 650.  
   Idaho State Dental Society, 79, 158, 237,



- 317, 391, 474, 478.  
 Illinois State Board of Dental Examiners, 397, 795.  
 Illinois State Dental Society, 391, 393, 560.  
 Indiana State Dental Association, 237, 239, 317, 391, 474, 478, 552, 556.  
 Interstate Dental Fraternity, 391, 474, 552, 555, 877.  
 Institute of Dental Pedagogics, 558, 876, 956.  
 Kansas State Board of Dental Examiners, 319, 400.  
 Kansas State Dental Association, 393.  
 Kentucky State Dental Association, 317, 318, 391, 399.  
 Los Angeles Association of Dental Alumni, 80.  
 Maine Dental Society, 158, 237, 317, 391, 393, 474, 476, 552, 556.  
 Maryland State Board of Dental Examiners, 319, 399, 798.  
 Maryland State Dental Association, 79, 237, 240.  
 Massachusetts Board of Registration in Dentistry, 238, 480, 796.  
 Massachusetts Dental Society, 237, 239, 317, 391, 474, 477.  
 Michigan Dental Association, 391, 396, 474, 479, 552, 557.  
 Michigan State Board of Dental Examiners, 240, 396.  
 Minnesota State Board of Dental Examiners, 794.  
 Minnesota State Dental Association, 79, 158, 237, 317, 391, 474, 552, 639, 640.  
 Mississippi Dental Association, 79, 158, 237, 317, 391, 640.  
 Missouri State Dental Association, 79, 158, 237, 317, 391, 395.  
 National Association of Dental Examiners, 79, 158, 160, 237, 317, 391, 474, 553.  
 National Association of Dental Faculties, 477, 552.  
 National Dental Association, 79, 158, 237, 317, 391, 474, 475, 552, 553, 555, 796, 798.  
 National Dental Association; Southern Branch, 555, 958.  
 Nebraska State Dental Society, 79, 158, 237, 317, 391, 394.  
 New Hampshire Dental Society, 394.  
 New Jersey State Board of Registration and Examination in Dentistry, 398, 479, 558, 795.  
 New Jersey State Dental Society, 79, 158, 237, 317, 391, 474, 475, 552, 556.  
 New Mexico Board of Dental Examiners, 476.  
 New Orleans Academy of Stomatology, 400.  
 New York State Dental Society, 79, 158, 237, 239, 317, 391, 392, 559.  
 North Carolina State Board of Dental Examiners, 400.  
 Northeastern Dental Association, 797.  
 Northern Indiana Dental Society, 959.  
 Northern Iowa Dental Society, 639.  
 Odontographic Society of Western Pennsylvania, 59, 240.  
 Ohio State Board of Dental Examiners, 399, 480, 559, 880.  
 Ohio State Dental Society, 79, 80, 158, 237, 317, 392, 474, 552, 639, 880.  
 Oklahoma Board of Dental Examiners, 319, 400, 870.  
 Oklahoma Dental Association, 318, 393, 879.  
 Pennsylvania State Board of Dental Examiners, 398, 479, 959.  
 Pennsylvania State Dental Society, 240, 474, 479, 552, 557.  
 Rhode Island Dental Society, 79, 80.  
 Seventh and Eighth Districts Dental Society of the State of New York, 799.  
 Sixth District Dental Society of the State of New York, 319, 396, 794.  
 South Dakota Dental Society, 474, 476.  
 South Dakota State Board of Dental Examiners, 398, 959.  
 Southern California Dental Association, 960.  
 Southern Illinois Dental Society, 797.  
 Southern Wisconsin Dental Association, 238, 395.  
 Southwestern Iowa Dental Society, 795.  
 Susquehanna Dental Association of Pennsylvania, 395.  
 Tennessee Dental Association, 79, 158, 237, 317, 391, 474, 552, 557.  
 Texarkana Dental Society, 798.  
 Texas Dental Association, 79, 156, 237, 317, 320, 392, 393, 560.  
 Utah State Dental Association, 878.  
 Vermont State Board of Dental Examiners, 479, 558.  
 Vermont State Dental Society, 79, 158, 237, 239, 400.  
 Virginia State Board of Dental Examiners, 477.  
 Virginia State Dental Association, 392, 396, 474, 476, 552, 558.  
 West Virginia State Board of Dental Examiners, 398, 477.  
 Wisconsin State Dental Society, 552, 557.
- Society Discussions:**  
 Adrenalin Salts, 47.  
 Advantages of Pressure Anaesthesia, 847.  
 Amalgam Stains in Teeth, 212.  
 Boston and Tufts Dental Alumni Association, 140, 931.  
 Cauldwell Interrupter, 221.  
 Central Dental Association of Northern New Jersey, 200, 462.  
 Chemical Properties of Adrenalin, 47.  
 Constitution of Adrenalin, 47.  
 Ether Vibrations, 219.  
 Filling Canals in Deciduous Teeth, 525.  
 Gold Fillings, 523.  
 Hydrogen, 201.  
 Hydrogen Dioxide, 201, 203.  
 Interstate Dental Fraternity, 852.  
 Manufacture of Hydrogen Dioxide, 202.  
 Method of Making Skiagraphs, 224.  
 National Society Meetings, 839.  
 New Hemostatic; Adrenalin, 45.  
 New Jersey State Dental Society, 837, 914.  
 Physiological Properties of Adrenalin, 48.  
 Preparation of Adrenalin, 46.  
 President's Address, 837.  
 Properties of Hydrogen Dioxide, 205.  
 Root Absorption, 522.  
 Runkorff Coil, 221.  
 Second District Dental Society, 53, 218, 298, 520, 607, 705.  
 Simultaneous Disease of Both Antra, 143.  
 Skiagraphs, 222.  
 Stress of Mastication, 532.  
 Tennessee State Dental Association, 934.  
 The Chemical and Physical Properties of Hydrogen Dioxide, 200.  
 The X-Ray, 220.  
 The X-Ray in Dentistry, 219.  
 Transillumination, 141.
- Society Papers:**  
 About Gold, 694.  
 Abscess Treatment, 293.  
 Action of Arsenic, 770.  
 Address, 604.  
 Adrenalin in Dentistry, 766.  
 Advertising, 457, 459.  
 Advertising a Vicarious Duty, 674.  
 Advertising Dentists, 453.  
 A Plea for the Less Frequent Use of Arsenious Oxide in the Extirpation of the Dental Pulp, 770.  
 Archite, 704.  
 Arsenic in Cement Powders, 761.  
 Arsenic Not a Pulp Preservative, 771.  
 Boston and Tufts Dental Alumni Association, 130.  
 Bridge Work, 703.  
 Bromo-Chloron, the New Disinfectant, 291.  
 Brophy's Operation, 765.  
 Care of Instruments, 294.  
 Cases of Rapid Healing of Antra, 133.  
 Cataphoresis, 703.  
 Cavity Preparation, 690.  
 Chemistry of Bromo-Chloron, 291.



- Choice of Methods in Bridge Work, 34.  
 Clasp Denture, 38.  
 Cleanliness in Dental Practice, 294.  
 Close Bite Cases, 40.  
 Combination Bridge and Partial Plates, 41.  
 Conservatism, 702.  
 Copper Amalgam, 703.  
 Dangers of Bridge Work, 602.  
 Deductions from Test Fillings, 746.  
 Dental Parlor Advertisements, 460.  
 Dentigerous Cysts, 134.  
 Diagnosis by Antral Illumination, 131.  
 Easily Attained Aseptic Methods, 595.  
 Effects of Excess of Uric Acid, 752.  
 Empyema of the Antrum of Highmore, 130.  
 Etiology and Surgical Treatment of Congenital Cleft Palate, 763.  
 Etiology of Cleft Palate, 763.  
 Evils of Faulty Mastication, 501.  
 Experiments in Immediate Root Filling, 833.  
 Extension for Prevention, 603, 750.  
 Filling Teeth, 702.  
 Formaldehyde, 596.  
 Forma Percha, 834.  
 Fusing the Porcelain Pin, 691.  
 Gold in Its Natural State, 695.  
 Gold Inlays, 518.  
 Gout of the Teeth, 753.  
 Gouty Pericementitis, 752.  
 How Far Can Surgical Asepsis Be Applied to Everyday Dental Practice, 593.  
 Importance of Ethical Advertising, 683.  
 Indications for Porcelain Inlays, 517.  
 Influence of Amalgam, 508.  
 Large Contours Made of Gold, 703.  
 Liquid Oxygen, 697.  
 Liquid Oxygen and Liquid Air, 700.  
 Making the Filling, 749.  
 Matrix, 690, 747.  
 Medical Uses of Liquid Gases, 701.  
 Method of Liquefying Gases, 698.  
 Method of Retaining Porcelain Corners, 692.  
 Method of Sterilizing Root Canals, 833.  
 Methods Requiring Soldered Facings Condemned, 35.  
 Mining Gold, 695.  
 Mouth Props, 597.  
 Necrosis, 756.  
 Necrotic Bone in Diseases of the Antrum, 133.  
 Objectionable Characteristics of Amalgam, 744.  
 Objections to the Use of Arsenic, 772.  
 Office Table and Linen, 295.  
 Old Thoughts in Relation to Pyorrhea Alveolaris, 599.  
 Operations on Cleft Palate, 764.  
 Oral Surgery, 755.  
 Outline of Cavity Margins, 746.  
 Painless Pulp Removal, 767.  
 Porcelain, 704.  
 Porcelain Corners Retained by Porcelain Pins, 689.  
 Porcelain Inlays and Their Limitations, 515.  
 Practical Bridge Work, 33.  
 Preparation of Cavities for Gold, 510.  
 President's Address, 136, 909.  
 Pressure Anaesthesia, 773.  
 Properties of Gold, 697.  
 Properties of Alloy and Mercury, 748.  
 Pulp Exposures, 505.  
 Pulp Mummification, 704.  
 Pulpless Deciduous Molars, 506.  
 Qualities of a Good Alloy, 748.  
 Relation of the Ethmoid to the Antrum, 132.  
 Remarks on Pyorrhea, 751.  
 Requirements for Perfecting Amalgam Fillings, 744.  
 Responsibility of Colleges and Examining Boards, 681.  
 Retention of Porcelain Inlay Restorations Including Angles of Incisors and Proximal Marginal Ridges of Bicuspsids, 691.  
 Second District Dental Society, 33, 136.  
 Small Occlusal Cavities, 502.  
 Small Proximo-Occlusal Cavities, 503.  
 Some Considerations Pertaining to Immediate Root Filling, 832.  
 Sterilized Instruments, 595.  
 The Advantages of Hand Pressure in the Introduction and Condensation of Cohesive Gold Fillings, 687.  
 The Antrum, 757.  
 The Drug Aspect of Lesions of the Gums, 903.  
 The Question of Interstate Reciprocity in Dental Licensure, 896.  
 The Ethical Advertiser, 460.  
 Therapeutic Effects of Bromo-Chloron, 292.  
 The Reason for Early Filling, 513.  
 The Technique of Gold Fillings in Sixth Year Molars; Occlusal Cavities, 508.  
 The Treatment of Deciduous Molars, 501.  
 Treatment of Antral Diseases, 135.  
 Treatment of the Sulci in Sixth Year Molars, 511.  
 Tumors of the Lips and Mouth, 759.  
 Uses for Bridge Work, 37.  
 Uses of Adrenalin, 769.  
 Value of Early Education, 679.  
 Varying Modes of Advertising, 676.  
 Women Always Ethical Dentists, 680.  
 Wounds, 758.  
 Society Papers, Property Rights in, 775  
 Society Reports from a Reader's Standpoint, Dental, 241.  
 Society's Rights to Its Proceedings, A, 776.  
 Soldering, 23.  
 Facing, 106.  
 Solution for the License Interchange Problem, A, 466.  
 Some Considerations Pertaining to Immediate Root Filling, 832.  
 Some Observations on Mouth Breathing, 803.  
 South Dakota Dental Society, 474, 476.  
 South Dakota State Board of Dental Examiners, 398, 959.  
 Southern California Dental Association, 960.  
 Southern Dental Society of New Jersey, 702.  
 Southern Illinois Dental Society, 797.  
 Southern's Proceedings, The, 782.  
 Southern Wisconsin Dental Association, 238, 395, 515.  
 Southwestern Iowa Dental Society, 795.  
 Spence, S. J., Celluloid, 830.  
 Eleven Factors Tending to Maladaptation of Vulcanite Plates, 488.  
 Experiments in Vulcanite to Test Contraction and Warpage, 422.  
 Stains in Teeth, Amalgam, 212.  
 Starr, A. R., Discussion, 522.  
 Starr, F. J., In Memoriam of, 153.  
 Sterilized Instruments, 595.  
 Sterilizing Root Canals, Method of, 833.  
 Stockton, C. S., Dinner to, 68.  
 Discussion, 43, 523, 840, 852, 917, 928.  
 Strength of Porcelain Crowns, 261.  
 Stress Exerted Upon Artificial Teeth, 84.  
 Stress of Mastication, 532.  
 Strout, B. N., Discussion, 144.  
 Study of Mandibular Protrusion, A Comparative, 270.  
 Sublimine, 626.  
 Success in Dental Practice, 629.  
 Successful Crowning of Fractured Roots, 730.  
 Summa, R., Discussion, 669.  
 Superior Maxilla from the Standpoint of the Rhinologist, the Deformities of the, 180.  
 Supplemental Premolars, 568.  
 Supporting Crown in Furnace, 829.  
 Supreme Court Decision; Syllabus, 620.  
 Surgery, Oral, 755.  
 Surgical Asepsis Be Applied to Everyday Dental Practice, How Far Can? 593.  
 Surgical Treatment of Congenital Cleft Palate, Etiology, and, 763.  
 Susquehanna Dental Association of Pennsylvania, 395.  
 Sutphen, H. S., Conservatism, 702.  
 Discussion, 213, 230, 465.  
 Syphilitic and Other Destructive Diseases of the Bones of the Face, 4.  
 Taft, J., Death of, 873.

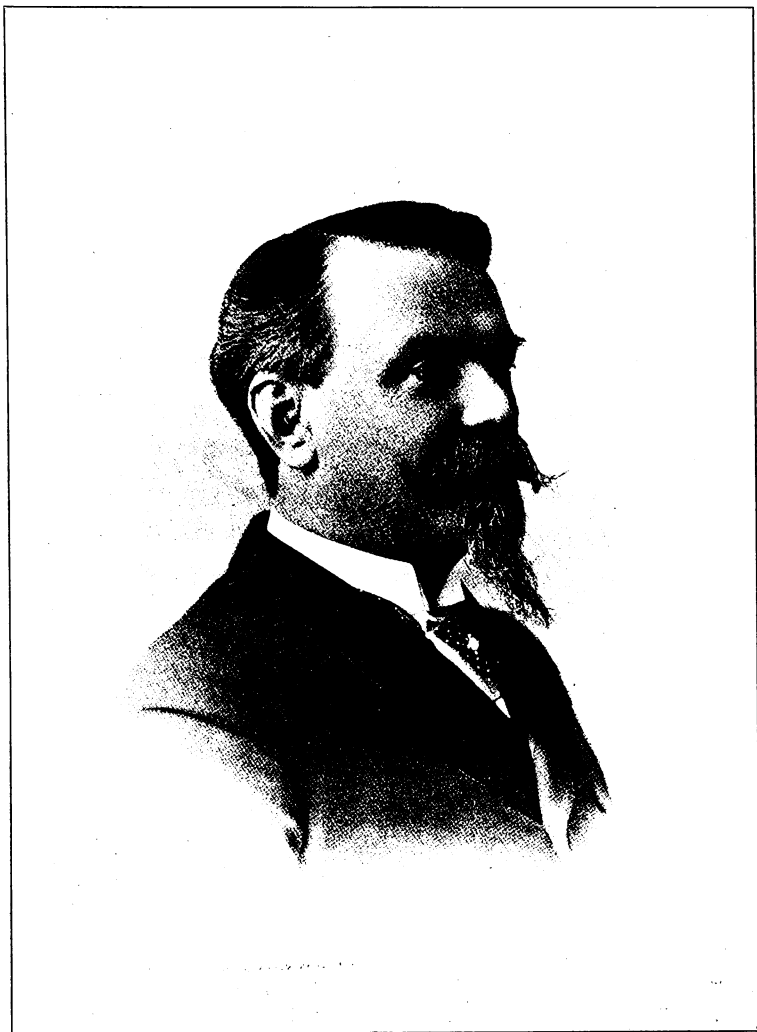


- In Memoriam of, 951.  
 Resolutions of Respect to, 953.  
 Takamine, J., Discussion, 45.  
 New Hemostatic, Adrenalin, 45.  
 Taking the Bite, 86.  
 Talbot, E. S., Recognition of the D. D. S. Degree by the American Medical Association, 481.  
 Talc for Carving Teeth in Techniques, Use of, 150.  
 Teaching of Orthodontia, The, 27.  
 Technique of Gold Fillings in Sixth Year Molars: Occlusal Cavities, 508.  
 Teeth, Amalgam Stains in, 212.  
 Anatomical Arrangement of Artificial, 81, be Filled with Gold, Should Permanent? 156.  
 Bridge Work Without Mutilating the Supporting, 177.  
 Filling, the, 702.  
 Gout of the, 753.  
 in Technics, Use of Talc for Carving, 150.  
 Among the Ancient Peruvians, Malocclusion of the, 493.  
 of Peruvians, 496.  
 Selecting the, 89.  
 Stress Exerted Upon Artificial, 84.  
 Temporo-Maxillary Articulation, The, 825.  
 Tennessee Dental Association, 79, 158, 237, 317, 392, 474, 934.  
 Tesla Coil in X-Ray Work, The, 379.  
 Test of Examining Boards A, 305.  
 Texarkana Dental Society, 798.  
 Texas State Dental Association, 79, 158, 237, 317, 320, 392, 393.  
 The Editor's Corner:  
 A Golden Anniversary Celebration, 945.  
 Art in Dentistry, 70.  
 Aseptic Towels for Dental Purposes, 942.  
 Asheville, 779.  
 A Simple Lathe Bath, 470.  
 Beta Eucain, 150.  
 Beta Eucain Hydrochlorate, 625.  
 Changes in the New Jersey Board, 469.  
 Clinics and Commercialism, 782.  
 Comparative Durability of Gold Fillings, 69.  
 Dental Office Robbed, 470.  
 Dental Law for Hawaii, 470.  
 Dental Manufacturers' Exhibit, 149.  
 Dental Practice in New Zealand, 150.  
 Dr. Holly Smith a Horticulturist, 542.  
 Formalin, 626.  
 Germicides in Dentistry, 626.  
 Interstate Dental Fraternity, 374, 469, 785.  
 Interstate Dental Fraternity Still Growing, 543.  
 Kresamin, 627.  
 Leg Injured by Tooth Extraction, 542.  
 Membership in International Congress, 943.  
 National Association of Dental Faculties, 783.  
 New Jersey Offers Interchange of License, 940.  
 New South Wales Dental Defence Association, 544.  
 Opinion of the Court, 621.  
 Paraform, 626.  
 Publication of the National's Proceedings, 781.  
 Reply to Dr. Haskell, 72.  
 Reply to Dr. Kells, 543.  
 Resignations from the Connecticut State Board, 544.  
 Resignations from the New Orleans College, 544.  
 Restoring Facing to Fixed Bridge, 541.  
 Sublamine, 626.  
 Supreme Court Decision Syllabus, 620.  
 The Buffalo Meetings, 941.  
 The Council, 780.  
 The National Association of Dental Examiners, 784.  
 The National Dental Association, 780.  
 The Southern's Proceedings, 782.  
 Treatment for Putrescent Pulp Canals, 150.  
 Trikresol, 627.  
 Use of Talc for Carving Teeth in Technics, 150.  
 What a Dentist Should Not Do, 377.  
 Therapeutic Effects of Bromo-Chloron, 292.  
 Therapeutics, 401.  
 Notes on Materia Medica, Pharmacology and, 471.  
 Thompson, Celluloid, 548.  
 Thompson, A. H., Malocclusion of the Teeth Among the Ancient Peruvians, 493.  
 Thorpe, B. L., Discussion, 864.  
 Thumb Sucking, 824.  
 Tonsils, Enlarged, 187.  
 Tooth, A Bridge, 100.  
 Extraction, Leg Injured by, 542.  
 For a Basis; an All Porcelain Crown Using an American Pinless, 738.  
 Trained Dental Nurse Advocated, 538.  
 The, 539, 633.  
 Transillumination, 141.  
 Treating Aluminum in Prosthetic Dentistry, A New and Efficient Mode of, 173.  
 Treatment for Putrescent Pulp Canals, 150.  
 of Antral Diseases, 135.  
 of Congenital Cleft Palate; Etiology and Surgical, 763.  
 of Deciduous Molars, The, 501.  
 of Mouth Breathers, 828.  
 of the Sulci in Sixth Year Molars, 511.  
 Trikresol, 627.  
 Truax, W. E., Discussion, 842.  
 Trueman, W. H., Dental Society Reports from a Reader's Standpoint, 241.  
 Tumors of the Lips and Mouth, 759.  
 Types of Conductors, 484.  
 Uniform Cusp Reinforcement; A Gold Cap Crown With, 726.  
 Unsolved Problems in Orthodontia, 28.  
 Uric Acid, Effects of Excess of, 752.  
 Use of Arsenious Oxide in the Extirpation of the Dental Pulp; A Plea for the Less Frequent, 770.  
 of Chloropercha, 421.  
 of Jacket Crown, 255.  
 of Oil Colors, 325.  
 of Shellac or Sandarac, 421.  
 Use of Talc for Carving Teeth in Technics, 150.  
 Uses for Bridge Work, 37.  
 of Adrenalin, 769.  
 Utah State Dental Association, 878.  
 Value of Early Education, 679.  
 Van Woert, F. T., Discussion, 55, 58, 226, 302.  
 Variation in Human Dentition, 561.  
 Varying Modes of Advertising, 676.  
 Vermont State Board of Dental Examiners, 479.  
 State Dental Society, 79, 158, 237, 239, 400.  
 Vicarious Duty, Advertising a, 674.  
 Virginia State Board of Dental Examiners, 477.  
 State Dental Association, 392, 396, 474, 476, 604.  
 Visit to Dr. Bonwil's Office, A, 82.  
 Vulcanite Plates, Eleven Factors Tending to Maladaptation of, 488.  
 to Test Contraction and Warpage, Experiments in, 422.  
 Walker, F. C., Discussion, 300, 705.  
 Walker R. H., Address, 604.  
 Warner, E. R., Remarks on Pyorrhea, 751.  
 Warpage; Experiments in Vulcanite to Test Contraction and, 422.  
 Watsing, Discussion, 121.  
 Watson, M. T., Discussion, 196, 446, 577, 671.  
 Weeks, Discussion, 439, 571.  
 Wertz, G. W., In Memoriam of, 790.  
 West Virginia State Board of Dental Examiners, 398, 477.  
 White, D. C., In Memoriam of, 637.  
 Whitney, J. M., Should Permanent Teeth be Filled with Gold? 156.  
 Wolf's Jaws, 279.  
 Women Always Ethical Dentists, 680.  
 Wounds, 758.  
 X-Ray Burns, 221.  
 in Dentistry, The, 219.  
 The, 220.  
 Work, The Tesla Coil in, 379.



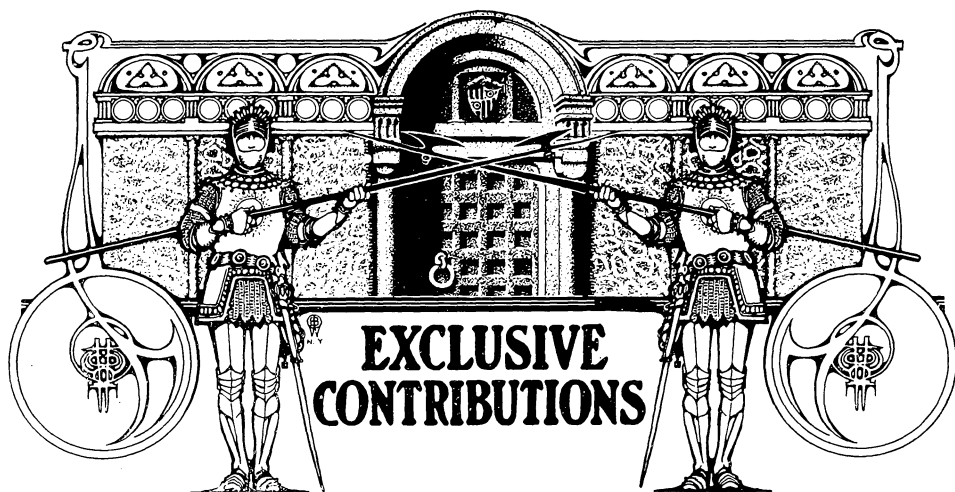






DR. JARIUS SEARLE HURLBUT.





## Syphilitic and Other Destructive Diseases of the Bones of the Face.

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Pathological changes about the tissues of the face resulting in death of bone are most common, and the cases are constantly presenting. It is quite common for the dentist to remove portions of bone during the management of pyorrhœa alveolaris and other suppurative conditions about the teeth. A cardinal symptom suggestive of beginning destruction of bone is swelling that pits on pressure, or what is known as oedema. When this is found either on the alveolar process or tibia, a careful study of associated symptoms should be made, since it is upon the proper and early management of such cases that the subsequent history depends.

When a periostitis is fully determined, a free incision should be made down to the bone, for just as soon as the colony of bacteria that is causing the trouble is reached and disconcerted their activity ceases and repair begins. When, however, myriads of bacteria are permitted to go on and multiply and destroy living cells, destruction is relatively great. The early treatment would appear to be applications of iodine and heat,



## ITEMS OF INTEREST

to be followed by incision in two or three days when no improvement is obtained by these remedies.

Syphilis as an element should always be thought of, for in these cases incision should never be made, but, instead, specific medication proper for the stage should be instituted.

To further emphasize the course of treatment and results in these conditions, a few typical cases are appended:

**Case I.** E. S., aged 25, came to the Presbyterian Hospital with an ulcer of roof of mouth with a small area of bone exposed. The ulcer had been cauterized and treated repeatedly, but without improvement. He had never been



Fig. 1.

given constitutional treatment, since the specific origin of the trouble had never been suspected. Upon questioning, it was learned that he had had a chancre five years before. The local treatment was discontinued and a saturated solution of iodine and potash ordered, five-drop doses at the beginning. This was increased one drop every day up to twenty drops and continued for several months. The exposed bone loosened and a piece about the size of a dime slightly to the left of the median line was removed. (Fig. 1.)

The ulcerating margins of the cleft healed, leaving an opening into



the left nasal fossa. The right mucous membrane fortunately escaped the destructive process.

No operation has been done as yet. To preserve the normal tone of voice until such a time as repair is completed and operative measures advisable, a vulcanite plate was adjusted.

**Case II.** M., aged 30, six years ago had periostitis of the anterior portion of the angle of the mandible extending back from the last molar. At this time it developed without pain or symptoms other than tumefaction. It opened



Fig. 2.

spontaneously and was later curetted by a surgeon and packed for several weeks, when it healed. For over five years it remained quiescent. The first symptom was swelling along the ramus as high up as the condyle. There was no pain or other symptom. In the course of ten days an abscess erupted spontaneously immediately at the junction of the ramus with the alveolus. A probe was passed back along the inside of the ramus toward the inferior dental foramen. Two or three roughened surfaces could be felt. The sinus could be noted. The sinus was en-



## ITEMS OF INTEREST

larged under cocaine, but no dead bone was removed. In three weeks an operation was made under chloroform. The internal surface of the ramus extending from the internal alveolar ridge to the inferior dental foramen was removed in one piece, which was about one inch long by three-eighths wide. Several small pieces were removed by curetting. The wound was packed and treated by daily irrigation until it healed.



*Fig. 3.*

**Case III.** Miss D. had a tooth extracted and no symptoms appeared for two weeks, when some soreness developed. This was followed by destructive symptoms and the formation of pus in several weeks. Evacuation with removal of the dead bone by curetting was followed by recovery.

**Case IV.** H. M., aged 29, had a chancre eight years ago without unusual history and no tertiary symptoms until two years ago, when he had beginning des-



tructive disease of the nasal septum, which gradually extended to the nasal bones and roof of the mouth. In spite of what it is reasonable to suppose was good treatment, the destruction continued and would, no doubt, have destroyed the entire maxillæ had not treatment (the orthodox pill of Frazier along with a dram of iodide of potash which the patient took himself) been faithfully carried out. The destruction ceased and repair of the ulcerative surfaces were entirely healed in six months. The case presented a most extensive destruction. The bones in the roof of the mouth and nasal cavity were so destroyed as to freely expose the body of the sphenoid. The ethmoid cells were destroyed well up to the cribreiform plate of the ethmoid. There was at no time, however, any cerebral symptoms.

A vulcanite prosthetic appliance continuous from a set of teeth made the man talk quite well.

**Case U.** Mrs. E. L., aged 34, had a cuspid extracted by a competent dentist. The extraction was followed in six or eight days by pain along the anterior alveolar process over the tooth. Pus developed in two weeks. At this time an examination revealed denuded bone the size of a thumb nail. The periosteum and mucous membrane were incised, the bone exposed and chiseled away, packed and at the end of ten days the patient was entirely well.

**Case VI.** J. F., aged 30, went to an advertising dentist with a toothache in the second right molar. At this time there was no swelling. After the injection of the usual local anesthetic, the tooth was extracted. Relief of pain followed. In twenty-four hours swelling began, pain of severe character returned and other symptoms of infective periostitis developed which increased, and on the tenth day another dentist incised the tissues and a pus sac was found extending over the external surface of the bone from the angle to near the mental foramen. During the course of treatment, the compact table from the above described surface was removed in several pieces, varying in size from a section of a lead pencil to a grain of wheat, and the remaining surfaces curetted. The cavity, which was quite extensive, was kept clean by hot irrigation and constantly packed with gauze. The gauze was not, however, pushed down between the periosteum and bone after the exfoliation was removed. It is at this time that harm can be done by continued packing of gauze down into the cavity, since the periosteum, if permitted to collapse against the now healthy bone, will in the course of ten days readhere. If kept packed, however, the nutrition from the center of the bone may not be sufficient to preserve vitality, and instead of repair taking place further destruction



## ITEMS OF INTEREST

is the result. In the above case repair was completed in about two months, with no return in three years.

**Case VII.** M. R., aged 33, had first right molar extracted under hypodermic anesthetic for toothache. Pain disappeared but soreness throughout the external surface of the mandible continued for several weeks, when an abscess spontaneously erupted. It continued to discharge for two months, when the writer saw the case and an operation was decided upon. An incision was made back under the insertion of the masseter muscle to the angle of the mandible. About one-third of the bone's thickness and one and one-half inches long was necrosed and was readily removed. Extensive hemorrhage from the inferior dental artery was controlled by packing the cavity with a strip of gauze one inch wide and one yard long. The surfaces completely healed, but there was left a cavity between the involucrum and the old bone, which had formed before the operation. This cavity has continued, but no trouble results except that particles of food occasionally enter, but as the orifice is quite large, there is no difficulty to remove them. Putrefaction has never resulted.

**Case VIII.** Boy, aged 18, had extraction of first left lower bicuspid. In the course of one week infection with all the symptoms of periostitis developed. An examination showed that the bone was denuded from three teeth and down to the apices of their roots. By the use of a chisel, the dead bone was removed and repair promptly followed. A prominent symptom was the great quantity of offensive greenish pus which was found.

**Case IX.** Girl, aged five, referred by Dr. Thorn, of McKeesport, had extensive enlargement over left angle of mandible. There was a sinus three inches below the mandible just at the posterior margin of the platysma leading up to the bone. A scar at the anterior border of the platysma above the clavicle showed that a sinus had terminated at this point.

An examination of the mouth revealed several granular papilæ along the alveolar ridge. Upon passing a probe, the bone was found to be denuded at several points. This condition was preceded by a history of abscess formation, pain and spontaneous eruption for several months.

Operation consisted in chiseling and biting away of the entire process wall down to the central canal and removal of at least the upper half of the bone at the angle. The bone was denuded of periosteum along the external surface of the remus. All of these surfaces that could not be removed without destroying the continuity of the bone were thoroughly curetted and allowed to collapse upon the bone with the hope that it would become adherent.



In the operation upon the alveolar process, all of the temporary and budding permanent teeth were included in the gelatinous and granular mass and were curetted away without difficulty.

**Case X.** Miss E., aged 16, referred by Dr. C. C. Elliot, of Kittanning, had been suffering with abscess formation about the upper left incisors for several months, which had been burned and the incisors had been extracted without abatement of symptoms. A more radical operation was advised and accepted. This consisted in the removal under general anesthesia of the entire process from the median line and including the cuspid up to the nasal floor. The root of the cuspid was found exposed at its apex. This cavity was firmly packed for twenty-four hours to control hemorrhage, after which light packing was renewed daily. The wound was irrigated with pure borolyptol, but no peroxide of hydrogen was used. In the course of six weeks the wound had entirely healed.

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## A Dental Phenomenon.

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By JOHN R. BEACH, D.D.S., Clarksville, Tenn.

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A short time ago an exceedingly interesting and peculiar case came under my observation, possibly no similar occurrence ever being recorded. It was interesting from a surgical standpoint, but of more value to the average practitioner of dentistry, from the fact that the condition now present is the result of past neglect and improper treatment.

The patient came into my office and inquired as to the cost of extracting a very peculiarly located tooth. I told her, and made an appointment to remove the offending member.

The tooth in question was an inferior third molar, erupting externally, showing the well-formed crown through the face, on the right side, as is shown in the illustration. Its position was about midway between the angle of the inferior maxilla and coronoid process of same. The crown had every appearance of being a *dens sapientiae*, the gingival margin being substituted by a slightly reddened cutaneous attachment.

Upon examination of the mouth I found a full complement of superior teeth occupying a normal position in the dental arch. Several lower teeth were missing, the second molar being the only grinder left on the right side, the side from which the tooth erupted.



## ITEMS OF INTEREST

The left cuspid occupied a rather conspicuous position, lying on the surface of the gum horizontally, the mesio-proximal surface of the crown and root fully exposed.

The history of the case referred to, so far as I could learn, is as follows:

### **History.**

The patient is a young colored woman, now twenty-two years of age, of tubercular diathesis inherited from her mother, and of syphilitic diathesis from her father. Her mother was thirteen years old when she



gave birth to this, her only child. The family lived in the country, and the child's deciduous teeth decayed early, giving much trouble, but never receiving attention from a dental surgeon.

While suffering severely from abscesses, but persistent in her efforts to attend school during a wet season in this condition, she contracted a severe cold. The inception of the trouble dates from this period. Soon pneumonia developed, and while very ill both sides of her face



were swollen to an alarming extent. It was impossible at this time to open the mouth without assistance.

All nourishment and medicine was taken with considerable difficulty, and swallowing of pus could not be prevented. The discharge was very offensive, in fact so much so that the room had to be kept well aired so that the nurse could stay in it. The girl's condition became critical, but was somewhat relieved by an external eruption of purulent matter on the left side, pus discharging freely and continuing so for some time. There is today a large cicatrix which marks the eruptive



point immediately beneath the second bicuspid tooth, extending backward to the facial notch. The discharge proved of some benefit, relieving swelling on left side, giving freer breathing space and allowing slight movement of the mandible.

The right side remained in a swollen state until the girl recovered. While convalescent the advisability of extracting the molars on right side was considered, but though quite troublesome, this was deemed unnecessary at this time.

Soon afterward a "dentist" who had a portable office (in a wagon)



## ITEMS OF INTEREST

came to our town and "extracted teeth without pain." The fame of this "doctor" spread to her neighborhood, so she came to town and had eight teeth extracted on the right side. Some time after returning home she removed from the body of the inferior maxilla, right side, a large piece of bone the shape of a spool. A week following she extracted for herself three loose lower anterior teeth, alveolar process attached.

For a time it was thought she was relieved, notwithstanding there remained slight swelling on the right side. This proved a false hope, for the swelling was persistent and was thought to be of the nature of sarcoma. Different poultices were recommended by her country friends and all faithfully tried. After quite a while there was noticed an external oozing of putrescent matter at the point over ramus of the jaw which the tooth afterwards occupied.

The tooth did not erupt immediately, however, but was some time in making its appearance. The eruption was preceded by the removal of two pieces of bone at intervals of about a month.

Not long after the removal of the second piece of necrosed bone, the crown of the molar was visible, and after the eruption of the crown was complete the ulceration ceased. A purulent discharge would be induced at intervals, from colds, and there would be slight pain in the region of the tooth.

The tooth remained in this position for several years before it was extracted. In the full face illustration it is seen that the right side is apparently swollen now, the facial distortion being very noticeable. There is a drawn appearance of the chin and lower lip to the right, the mental symphysis being about one-half an inch to the right of the median line. If the inferior maxilla is forced to the left, the swollen appearance is lessened, and the contour of the face is nearly normal.

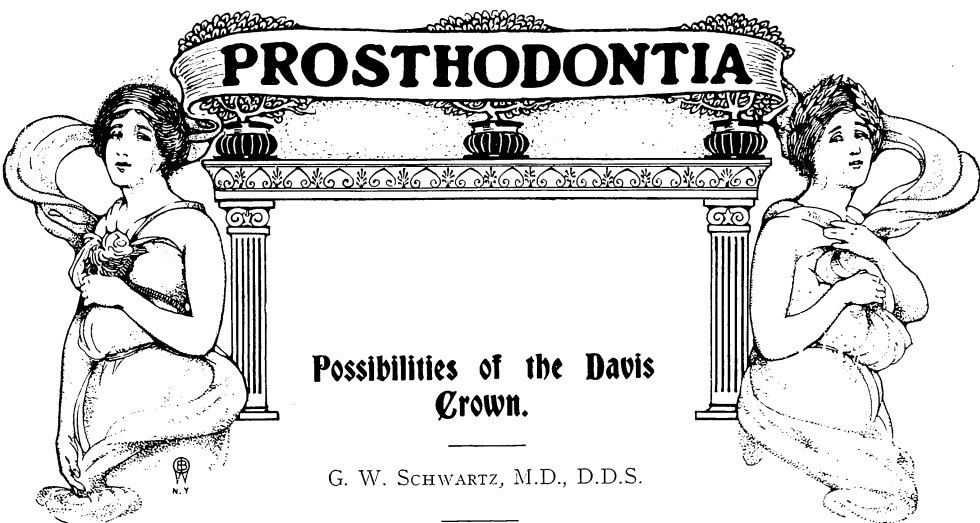
The girl was ten years old when this trouble began, and the right half of the inferior maxilla does not seem to be fully developed, but the left side is fully developed and in a normal condition.

The tooth would move when the jaw was opened or shut, and seems to be a lower third molar, migrated on account of the loss of bone, the result of necrosis.

This tooth has disfigured the girl's face for life, and made her objectionably conspicuous. This condition probably would not have developed had the child received the proper attention of a reputable dental surgeon.

Lately I have seen two or three cases where the patients' facial disfigurement was fearful, caused from neglect or improper treatment of abscesses, making it necessary to perform surgical operations for the removal of necrosed bone and infected area.





The simplicity of the Davis Crown has convinced me that it is destined to become very popular with all dentists. I know of no other crown which, in variety of methods, presents the possibilities of this one.

If the dentist chooses to set it in an economical and simple manner, it is the one with which he can secure the best and most rapid results. Should he wish to go farther and grind it with care and precision, its texture recommends it, as it can be ground and polished as perfectly as any tooth on the market.

If you are a porcelain worker and want a furnace tooth, I can recommend it as safe in its colors, the delicate shading characteristic of this tooth being preserved without perceptible change.

In regard to the "shadow problem," much discussed among dentists, in its relation to the change incident to uniting and baking crown and bridge bodies to facings, I can say, that the results have been gratifying to both myself and patients by the use of the following method. The Davis Crown, used in combination with S. S. White's latest porcelain bodies, results in colors which bake true to their shade guide, have a good resemblance to live tooth colors and, in view of these facts, reduce the difficulty of shades to its minimum.

The Davis pin is made by as correct and, I would say, as nearly perfect a plan as is possible in a set style of pin, adaptable to all classes of cases, including, when desired, the setting of crown with gutta percha.

A number of years ago, E. Parmlee Brown put a crown upon the



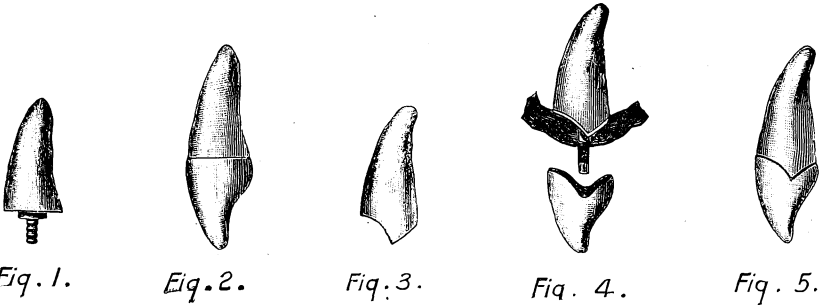
## ITEMS OF INTEREST

market. It had a correctly fashioned pin and, owing to the shape and quality of the pin and the manner in which it was baked in the tooth, was, to my mind, one of the best manufactured crowns made. Until the advent of the Davis Crown, with its improvement, I have often wondered why a pattern after the Brown has not been used by manufacturers of porcelain crowns.

I "know whereof I speak" in regard to the diverse possibilities of this crown and will, as briefly as possible, cite the various methods which I have used.

### **Rapid Method of Setting Davis Crown.**

We will first consider the easiest and most rapid method of setting the Davis Crown which is as follows: Having the root properly prepared to crown, grind it even with the gum line and enlarge the canal to receive the post. Next, cement it in place in the root. Now select a suitable crown and cement it to the post as shown in Figs. 1 and 2. If you prefer, you may cement the post in the crown first



and then the crown and post may be cemented to the root, or, you may cement the crown to the post and the post in root at the same time if you so choose, with results shown in cut Fig. 2.

If you wish to follow a more conservative method of setting this crown without banding the root, I would suggest that the root be ground at a bevel from the lingual margin to the center of the root as shown in Fig. 3. This preparation of the root, by reason of the bevel from the lingual margin to the center of the root, prevents liability to displacement from stress of mastication or incising force; also any possibility of splitting the root from the same cause. The concavity from the labial margin of root to the center gives plenty of room for thickness of porcelain, thus insuring its color.

The next step is to cement the post in place to the root and select



# PROSTHODONTIA

your crown. After the cement has set sufficiently not to disturb the post, you can begin grinding your porcelain in place. This may be done as follows: First, grind it to fit as nearly as possible, then insert a thin piece of carbon paper around the post so that it will come between the root and porcelain as shown in Fig. 4; by using a little rotary pressure, the carbon will leave little marks on the porcelain wherever it touches it. Grind until the surface is evenly marked by the carbon. With a little care a very close adaptation can be had by this method. When the porcelain is properly ground, dry the post and root and cement in place which completes this operation as shown in Fig. 5.

Grind the root evenly to the gum margin removing all enamel from it, thus giving the labial portion of the root a slight bevel. This bevel is for the purpose of covering the band by closely grinding the porcelain crown to it as shown in Figs. 6 and 7.

Having the root prepared and the canal enlarged, take a measurement of the root, cutting the band snug that it may take the beveled shape when fitted on. After the band has been properly fitted, solder the



Fig. 6.



Fig. 7.

cap, then fit the post in and solder them together as in Fig. 6. Now replace the cap on the root and you are ready to grind in the porcelain. Another way is to take an impression at this point and run a model with the cap in place, using the model to work with rather than the patient. In this case grinding in the porcelain gives the dentist a chance of showing his skill. It is a clever piece of work, requiring some patience when neatly ground in, but one which repays in satisfactory results. I use small corundum stones of different grits to do my first grinding. The fine grinding is done with a rubber corundum point mounted with jeweler's cement in a smooth porte polisher. After the porcelain is correctly ground, cement the crown to its place on the cap allowing it to set out of the mouth. Finally cement it to the root in the usual manner or set it with gutta percha. Fig. 7 shows this crown finished.



# ITEMS OF INTEREST

## In Porcelain.\*

### Platinum Matrix Without Band.

Prepare root as shown in Fig. 3. Take a piece of soft platinum plate, 36 G. or less, and burnish this over the root until its margins are distinctly outlined, Fig. 8. Punch a hole in this matrix where the post should go, using a plate punch. Take an iridio-platinum post and push it into place in the root canal through the hole made in the matrix. Now remove matrix and post together and solder. Pure gold will do to solder in this case. Replace matrix on root and burnish to place again. By trimming off all excess platinum, you will have a matrix following the marginal outline of the root, Fig. 9. You are now ready to select the porcelain crown to be baked to this post and matrix. Grind the porcelain to fit matrix as shown in Fig. 10. Put some thin body in the post hole of the crown, being careful to work it to place on the pin. Let it dry. Then put the crown on a crown tray with two small rolls of asbestos under the



Fig. 8.



Fig. 9.



Fig. 10.

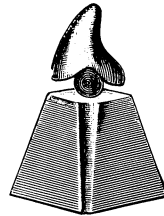


Fig. 11.



Fig. 12.

matrix as shown in Fig. 11. These rolls, one on each side of the post, prevent the matrix from coming in contact with the tray and so obviate the danger of its changing shape or fusing to the tray. You are now ready to put it through its first baking. This should not be carried beyond a good biscuit. After the first bake, try it in the mouth to see that it is correct. If the porcelain needs grinding to conform to the outline of the matrix, as it usually does, do so before the second baking and polish the ground surfaces with disks; remove all foreign substances from the case by careful cleansing and after filling the spaces beneath the matrix with porcelain body, bake.

If the work has been thoroughly done, this should complete it and it should come out of the furnace a beautiful piece of work. As the matrix has now served its purpose it should be removed. If it were left on the

\*Methods original with the author.



# PROSTHODONTIA

crown it would have a tendency to produce a blue shade at the neck which is to be avoided. To remove the matrix, take a small, round bur and drill through it close to and around the post. Next, take a sharp pointed excavator and, beginning at the lingual margin, continue to raise the matrix up until the entire matrix comes away from the crown. This crown should resemble Fig. 12 when cemented in place.

Prepare the root for this crown in the manner illustrated in Fig. 6. The metal work is done by the **Platinum Band,** same method but with the following difference in materials; platinum is used instead of gold for the cap and band and an iridio-platinum post is substituted in this case for the Davis post used in the other. The reason for this substitution of platinum is obvious. This crown is to be put through the furnace. Having proceeded to the point of having the platinum cap and post in place on the root, take the bite and a plaster impression, melt a small quantity of wax in the platinum cap and run the models. This placing of wax in the cap



Fig. 13.



Fig. 14.

facilitates the removal of the latter from the model. Before going farther it is well to see that the wax is out of the cap and that the cap goes on and comes off the model easily. After placing the cap again on the model you may proceed to grind in the crown. For the purpose of getting porcelain body in for the last baking, two V-shaped spaces should be ground in the crown, one mesially and one distally; Fig. 13. When properly ground and ready for the first bake, the crown should touch the cap at a labial and at a lingual point.

To fasten the crown and cap together for the first bake, put some thin body in the post hole of the crown, carefully letting it settle to place on the post and cap. After allowing this to dry, gently remove it from the model, place it on a crown tray for the purpose and biscuit it in the furnace.

When it has gone through the furnace for the first time, try it in the mouth and then do the necessary grinding and polishing. Before baking



## ITEMS OF INTEREST

for the last time it should be thoroughly cleansed and the porcelain body packed onto the case in such a manner as to give it the proper contour.

When carefully done, this makes an ideal crown and one that is entitled to its place in porcelain dental art. The finished crown should resemble Fig. 14. This I consider the best of the five methods herein described.

There are two strong points in favor of these crowns which it might be well to mention. The first is, there is no soldering to be done where there is danger of checking porcelain. The second is, they are easily repaired when broken in the mouth.

Lastly, when a patient comes to you with a Logan post fast in the root, grind in a Davis Crown and cement it in place.

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### Porcelain Crowns.\*

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By HART J. GOSLEE, D.D.S., Chicago, Ill.

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#### CHAPTER XII.

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Contraindications. Indications. Advantages: Esthetic; Anterior Crowns, Bicuspid Crowns, Molar Crowns. Hygienic. Mechanical; Attachment of Facing, Attachment of Molar and Bicuspid Crowns to Root. Application: Requirements; Strength of Metal Construction, Soldering, Oxyhydrogen Flame, Root Preparation.

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After having passed through the various experimental stages incident to the development of its possibilities, the application of porcelain work, or the *ceramic art* has opened one of the most artistic and practical fields of dentistry, and is without doubt destined to become a permanent part of modern practice.

While the primitive efforts in this line were fraught with many discouraging phases, and replete with failures, and much of the resultant development must be attributed to the ever-increasing and constantly improving facilities; yet, throughout the entire era of its employment, from the time when the material was supplied in only one or two grades and colors; when the *coke* furnaces afforded the only adequate means for obtaining sufficient heat, and when the "baking" of a case required considerable effort and consumed much time, until the present, when it can

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\*Copyright, 1902, by Hart J. Goslee.



## PROSTHODONTIA

be procured in several grades and in varying colors; when the same procedure may be accomplished in the operating room in the presence of the patient, instead of the laboratory, at night; and at the expense of but little time or effort, the *possibilities* of such work from an *artistic* point of view have always been fully appreciated.

Since porcelain is a *mineral* substance, however, and in consequence possesses the characteristic of *friability*, the possibilities from the viewpoint of *strength*—which as a requirement is of equal importance with the esthetic—have been observed and recognized only in its more modern application; and have been attained mainly as the result of continued experimentation on the part of those who were sufficiently enthusiastic and progressive to ascertain the causes of failures, and endeavor to overcome them by the elimination of weak points.

As a result, the use of porcelain in its present form, and with the facilities available, make it possible for the skilful and experienced operator to achieve results which combine both of these requirements to a high degree. This is especially true of its application to crown and bridgework, in which its conservative employment may be productive of a class of work which more closely approaches the *ideal* than any other, by conserving the very highest possible esthetic and mechanical requirements.

In view of the *friable* nature of porcelain, however, the desired and necessary degree of strength is *not* to be obtained from *thin* layers, or *veneers*, but is dependent upon the presence of a sufficient thickness to insure the requisite resistance to stress. For this reason the possible strength of such work will naturally increase in proportion to the amount which may be used in the individual case, *or in proportion with the bulk*; and for the latter reason, porcelain work in any of its phases is not universally applicable, but, on the contrary, has its definite prescribed limitations.

Hence the entire practicability of this class of work will depend upon, first, *conservative* or *judicious application*, and second, a *skilful execution* of all of the details incident to the construction.

The absolute necessity for scrupulous attention to detail, and for the utmost of painstaking care in its execution accounts to a large extent for the occurrence of failures, and elevates this class of work to a plane somewhat beyond the ordinary. Indeed, the successful manipulation of porcelain promotes and demands the acquirement of a degree of skill, and the cultivation of an artistic temperament, which is far beyond the province of those whose efforts are more or less encompassed within the range of indifference.

While failures will occur in any line of work, a very large proportion





## ITEMS OF INTEREST

of them in this particular class can invariably be attributed to an inadequate conception of the requirements, or *injudicious application*; or to unskilful or faulty construction and manipulation; either, or all, of which should reflect upon the inexperience or indifference of the operator rather than to cause or result in a premature condemnation of principles, methods and materials involved.

### Contraindications.

For these apparent reasons the application of porcelain to the construction of *individual crowns*, to which consideration this chapter will be exclusively devoted, is contraindicated in all cases where the maximum length of the crown, or the close occlusion of the opposing teeth, precludes the presence of porcelain in *sufficient* thickness, or *bulk*, to insure an *adequate degree of strength*; and where nothing but an indestructible substance, like metal, could be relied upon to withstand the stress of mastication.

### Indications.

As such cases present the *exceptional*, rather than the usual conditions, however, and hence constitute a small percentage of those requiring a restoration of the natural crown, the application of porcelain crowns, properly constructed, is especially indicated on the ten anterior teeth, and not infrequently upon the molars, in all cases presenting a *normal* or *average favorable occlusion*.

### Advantages.

The special advantages to be obtained from the application of porcelain crowns lie in the artistic manner and facility with which the natural conditions and varying characteristics may be closely simulated; the hygienic qualities of the material, and the possibilities for comparative and relative strength. These may be classified as *esthetic*, *hygienic* and *mechanical* and each will be separately considered.

**Esthetic.** While the possibilities for avoiding any display of gold are always a very desirable advantage, this esthetic feature is further supplemented by the absence of a metal backing, the use of which particularly on the anterior teeth is always more or less objectionable.

**Anterior Crowns.** In the construction of crowns for the six anterior teeth the reflection of the rays of light and its variations bear materially upon the color problem, and more artistic results are always to be obtained from the absence of a metal backing for the reason that its presence *destroys the translucency of the porcelain facing*; *changes its color*, and often occasions the appear-



## PROSTHODONTIA

ance of a dark blue line along the point between facing and backing. This latter unsightly and unhygienic condition is due to the penetration and decomposition of secretions, and is of course decidedly objectionable. While the translucency of the facing is slightly diminished even in a porcelain crown, it is by no means *destroyed*, and the other objectionable features are entirely eliminated, all of which are, particularly in this region, especially important considerations.

In the restoration of the crowns of bicuspid  
**Bicuspid Crowns.** the employment of porcelain is especially indicated because of the difficulty of obtaining the same esthetic effect, combined with the required degree of strength, in any other style of construction. Indeed the ease and facility with which both of these features may be obtained, as compared with any other style of crown, causes its application to be pre-eminently indicated on these teeth.

Although color and translucency are not so  
**Molar Crowns.** essentially important a consideration in crowning the molars, and granting the previously mentioned advantages of the gold shell or telescope crown for these teeth, there are nevertheless frequent indications for the application of porcelain crowns. Often on the *first*, and occasionally on the *second* molars, and particularly in the mouths of women, gold crowns are more or less conspicuous, and the use of porcelain may serve a highly esthetic purpose in these cases.

The hygienic properties of a smooth, highly  
**Hygienic.** vitrified surface, like that which presents in porcelain, constitute an important advantage of inestimable value in the mouth. Such a surface is more easily kept clean than that of gold because it is immune to the chemical action of the secretions, and food products will not cling to, become deposited upon, or absorbed by it. For this reason, and possibly also because of its properties of slow conductivity, it is least irritating to, and most compatible with, the tissues of the mouth.

Those advantages which have been classified  
**Mechanical.** as *mechanical* will be considered from the view-point of the relative degree of possible *strength* which may be obtained both in the construction of the crown, and in its attachment to the root.

As the attachment of the facing is usually the  
**Attachment of Facing.** weakest point in the construction of dowel crowns, in this connection the relative strength to be obtained from this style of construction as compared with a metal back crown is a matter of much concern and of appreciable importance.





## ITEMS OF INTEREST

The probability of the subsequent occurrence of fractured facings in porcelain crown work is reduced to a minimum for the reason that, in a metal backed crown the facing is attached to the backing simply and only by means of the attachment pins, while, in a porcelain crown, this same attachment is also secured and then further supplemented by the fusion of the porcelain over the entire lingual surface of the facing.

The additional strength thus obtained by this combined means of attachment makes it practically impossible for the facing to be broken away from a well constructed crown. When such breakage or accident does occur, the entire mass of porcelain, including facing, will usually separate from the cap, which rarely happens, and which can be quite as often attributed to, and invariably indicates, faulty construction of the crown with regard to the means observed for the support and retention of the porcelain.

In the attachment of molar and bicuspid crowns to the root a *possible* mechanical advantage is also possessed, even over gold crowns, because of the greater facility with which a *short* projecting end of the root *may* be properly prepared, and a *narrow* band accurately fitted, as compared with the requirements incident to shaping a longer projecting end of the root and adapting a wider band.

While the latter procedure may be somewhat more difficult, any possible advantage reverts, however, to the degree of skill with which the detail is executed, and unless the *esthetic* requirements indicate the application of a porcelain crown, or the root is primarily destroyed to a close proximity with the gum line, the preference should usually be given to the gold crown because of the conservation of tooth structure, and of the increased strength in the attachment between crown and root which may possibly be obtained in the use of a wider telescoping band.

### Application.

In the application of this class of crown construction the highest possible advantages can be derived only from a careful observation of the requirements, combined with a skilful execution of the details in the preparation of the root; the construction and adaptation of the cap, and attachment of the facing; and the manipulation of the "body" itself.

When the conditions of occlusion are, or may be made, favorable, and when these details of construction have been executed with skill, a porcelain crown possesses adequate strength to meet the requirements in all average and typical cases; and the possible integrity in such work often exceeds that of any other style of construction.



# PROSTHODONTIA

To obtain such results with a maximum degree of strength, however, *three* essential requirements must be observed: First, the cap, or base, of the crown must be inherently *strong* enough to *retain its shape*, and afford ample means of *attachment* and *support* to the porcelain. Second, the facing must be *properly adapted*, and *securely attached* to the cap; and third, the selection and manipulation of the "body" must be made with a view to securing the best possible results.

**Strength of Metal Construction.** In order that the requisite strength may exist in the metal parts they must be made of a material which will withstand the degree of heat required to fuse the porcelain; and a gauge sufficiently thick to retain its given shape must be used. Because of the practical infusibility of platinum, of its malleability, slight susceptibility to oxidation, and to the chemical action of the secretions, it is used almost exclusively for all of the parts for this work, excepting the dowel. For this purpose the alloy of platinum and iridium is used because of the softness of platinum alone, and of the additional stiffness imparted by the incorporation of various proportions of the latter metal.

**Soldering.** In soldering the various parts *perfect contact* between all joints to be united should exist, and their union must be effected with a grade of solder which will not be *disturbed* or *re-fused* in the subsequent "baking" of the crown. For this reason twenty-five per cent platinum solder should be used throughout the entire assemblage of the metal parts if the *greatest degree* of strength is to be obtained, and its use is *absolutely necessary* wherever contact does *not* exist.

In the construction of single crowns, however, all of the soldering may be done successfully with the use of *pure gold* as a solder, *providing* that *absolute contact* of the parts has been secured, and that the gold is then *thoroughly fused* until all surplus *disappears* by becoming *absorbed* by, and *alloyed with*, the platinum.

This may be easily accomplished by the *continued* application of a small pointed flame from the ordinary combination mouth blow-pipe, and will be indicated by the disappearance of the surplus, and the blending of its color into that of the platinum. To secure this result with facility, however, it is highly important that only enough gold should be used to make the joint, and such a union will possess strength, and successfully withstand the degree of heat necessary to fuse the porcelain.

Should absolute contact not exist at any point in the joint the disappearance of the pure gold solder, which is due to absorption and not to volatilization, will result in a subsequent opening and weakening of the joint, either from the heat of the blow-pipe, or of the furnace.





## ITEMS OF INTEREST

In the use of platinum solders, whether or not  
**Oxyhydrogen Flame.** an investment is employed, the use of the oxyhydrogen flame is essential, and while the same might also be used with pure gold, it is entirely unnecessary.

As those requirements incident to the attachment of the facing, and the manipulation of the body, constitute important procedures in the construction of the crown, they will be subsequently considered in regular order.

The requirements of root preparation are similar to those previously indicated in the application of any of the various styles of dowel crowns, with the exception that, for porcelain work, the root should be cut down until as *short as consistent* in order to secure as much space, and make as much accommodation for the porcelain as possible.

While an unnecessary waste or sacrifice of tooth structure is to be condemned as a general practice, for the above reason the root should be cut shorter for porcelain crowns than for any other style of construction, but, *if a band is to be employed* a *projecting* surplus end should always be allowed to remain until the *peripheral trimming* has been accomplished, the *measurement taken*, and the *band fitted*. This is necessary for the reasons previously mentioned in connection with the "band and dowel" crown, and the same shape is indicated for the basal end of the root as formerly recommended and illustrated for anterior roots in Fig. 50, and for bicuspid and molar roots in Fig. 53.







## American Society of Orthodontists.

### President's Address.

By EDWARD H. ANGLE, M.D., D.D.S., St. Louis, Mo.

*Read before the American Society of Orthodontia at Philadelphia, October, 1902.*

This morning we inaugurate what, let us hope and believe, is another important event in the evolution of the science of orthodontia, namely, the second annual meeting of the American Society of Orthodontists.

#### **Objects of Organization.**

You will remember that but one year ago, a little earlier than this, was held our first meeting. The organization of the society was fraught with much anxiety, much thought and carefulness of preparation. But its founders believed they were right and worked with an earnestness of purpose not often exceeded. They believed that in dental conventions, where papers and discussions on orthodontia were mixed with those on topics of general dentistry, the real significance and importance of this great subject was to a large degree lost; that such encouragement was not, and could not, there be given to fine and painstaking research in orthodontia as it demands in its present development; that the consideration given the subject under these conditions was usually superficial and not infrequently mere repetition from year to year of what could already be found in our literature. A few years ago such discussions were doubtless indulged in with profit, but the orthodontia of today requires most exact and painstaking research along lines remote from the mechanical phases (principally regulating appliances)





## ITEMS OF INTEREST

which were once thought to chiefly constitute the science, and demands the broadest study and a closer concentration of the best minds under the most favorable environments. Such environments can only be possible in a society devoted exclusively to its interests. Hence the organization of this society.

The number, character and scientific value of the papers brought before the first meeting awakened such favorable comment and such widespread interest as was most gratifying to its founders and strengthened them in their belief that the organization of the society was a wise procedure and that a great future was in store for it. And I feel confident, from my knowledge of the earnestness and ability of those who are to present papers here, and from the number and character of the men whose names have been presented for membership, that this meeting will also be in full keeping with the aims and objects of the society, namely, the furthering of the highest interests of orthodontia, in scientific research, in theory and in practice.

I am thoroughly convinced in my own mind,  
**Orthodontia** and I believe it must be apparent to all thoughtful  
**a Specialty.** men who are at all familiar with the science, that  
the greatest future of orthodontia lies in its gradual

separation from general lines of dentistry and its development as a separate and distinct specialty, and that both branches of practice would profit by the separation. When unhampered by the difficulties and annoyances of other phases of dentistry it becomes one of the most fascinating and lucrative branches of study and practice, opening up possibilities of results and attractive fields of research which can never be remotely possible to the general practitioner, interested as he is in the many other lines of dental science, each with its various exactions on his time and thought.

The successful practice of orthodontia by the general practitioner is now well-nigh impossible from the fact that the science now embraces so much and its progress has been so rapid in recent years that he cannot keep abreast of it and pursue a course of treatment which is up to date, in connection with the equally progressive and broadening branches of general dentistry, for he can at best undertake the treatment of but a very few cases of malocclusion in a year—never a sufficient number for him to learn much by experience. He must pursue the treatment of these cases, largely as experiments, possibly for many months, at such times as he can best spare between other operations which he usually regards as more lucrative or important. Thus the two classes of work necessarily conflict, orthodontia being the one most often slighted, receiving, in many cases, but a modicum of attention.



## ORTHODONTIA

Should it occasion any wonder, then, that often long before these cases are completed they have become a source of much annoyance to him, often a nuisance and hindrance to his regular operations, and that he must lose interest and fall far short of accomplishing what would be within the easy possibilities had he an aptitude and liking for it and were he giving his entire time to the consideration of this special class of work, to say nothing of the increased ease and speed with which it might then be accomplished. Indeed his experience in orthodontia is necessarily so limited that he is very liable to commit such blunders in diagnosis and treatment that his results are more frequently harmful than beneficial to the dental apparatus as a whole. I have often been amused in dental society meetings or in reading the journals, by the discussion at great length of some supposedly rare case, offering many novel phases and difficulties of practice. In reality it is quickly recognized by the specialist in orthodontia as being one of a large number of similar cases—often quite a common type, which he could easily, speedily and successfully treat, for with him such cases have long passed the period of novelty and experimentation.

**The Teaching  
of Orthodontia.** It is unfortunate that our colleges still insist on forcing every student to study orthodontia and on graduating him in it—a plan quite as absurd and as devoid of success as it would be to compel every

individual to study and graduate in music or in rhetoric and oratory. Let us hope that the time is not far distant when the colleges will not only reform in their methods of teaching orthodontia, but will limit this teaching to the rare few in each class who have an aptitude and liking for the work, letting the remainder be spared the useless burden beyond instruction in a few general principles.

One of the most unfortunate results of the superficial way in which dentists have been taught orthodontia is that it leaves them in ignorance of how little they really know about it and how serious are the blunders which they commit. Let him who has not the time to study and practice it as it should be studied and practiced, desist; and let him who from ignorance or cupidity persists in mutilations so serious be legally restrained. We have stringent laws against the mutilation of man by his fellows. Why should they not be enforced?

Of course it would be folly to expect the immediate complete separation of two branches that have so long been blended in such supposed mutual interest, for great changes are usually effected slowly. While there are now but a few exclusive practitioners of orthodontia, yet I believe each year will rapidly add to this number, and I do not believe the time is far distant when each city of twenty thousand inhabitants







## ITEMS OF INTEREST

will be represented by at least one competent, conscientious specialist in orthodontia.

Let our efforts be to encourage all practitioners of orthodontia, but to offer greatest encouragement to those *young* men who wish to devote their lives to this great work, second in importance to none. Our services are needed by such vast numbers of humanity and our opportunities for good are so great by restoring normal relations and functions to the inclined planes of occlusion, enlarging the arches and vault of the arch and harmonizing it in its relations to the nasal tract, thus rendering greater beauties of the voice in speech and song, as well as adding to the beauty of the face, that who of us here can estimate the importance of our science or the great part which it is to play in the future?

**Unsolved Problems in Orthodontia.** But let us keep in mind, notwithstanding the fact that orthodontia has recently made marvelous advancement, almost revolutionizing itself in the

past two or three years, that there are yet many points on which much careful, painstaking and methodical investigation is needed. For example, from the behavior of the alveolar process, both in its absorption and reproduction, I am inclined to believe that we really know very little about its structure; that many of the accepted views of the older writers are very incorrect, and that, being more vitally interested in this structure than the practitioners of any other branch of medicine, from us must come the much-needed original work in regard to it.

And again, it has long been known that there exists a certain relationship between rhinology and orthodontia, but to what extent the two sciences blend or are interdependent is still undetermined. Both the orthodontist and the rhinologist have been working in almost total ignorance of the efforts and aims of each other, and in fields only separated by a single bony septum—the vault of the arch. To what extent is malocclusion due to pathological conditions of the nose and nasopharynx? And to what extent are these pathological conditions due to malocclusion of the teeth? The answers are as yet vague and indefinite, but their great importance must be apparent to all, and also the fact that careful, painstaking research, with many tabulated reports of results, are necessary before these questions can be definitely answered.

In my opinion we may have more hope from the investigations of the orthodontist than from those of the rhinologist, for it seems to me that of necessity the orthodontist is more vitally interested. The rhinologist may attribute his failures to causes over which he has no control and for which he could not be justly held accountable, so that partial success in his efforts might be acceptable; but with the orthodontist there



## ORTHODONTIA

is no middle ground—no partial success. The teeth must be maintained in normal occlusion, or they will return to positions of malocclusion, nearly, if not quite, as bad as their original condition. In my opinion there is now no reason for the latter that is beyond the control of the orthodontist, unless it be pathological conditions of the nasal tract. And this leads me to believe that a very thorough study of the nasal tract is essential to the study of orthodontia, and that possibly the two classes of practice, rhinology and orthodontia, might with advantage be combined. Certainly an opportunity for much needed closer observation and investigation would thus be afforded.

**Orthodontia and** Another thought has impressed me strongly  
**Physiognomy.** within the last two or three years—the importance of a closer study by the orthodontist of art in its relation to the face. That little or no attention is

paid to it by those to whom the care of the teeth is intrusted is plainly evident in the impaired facial lines resulting from badly performed operations in orthodontia—chiefly those of the needless extraction of teeth for the supposed prevention or cure of malocclusion.

It must be remembered that each face is in reality a law unto itself, and a knowledge of the fine shadings of requirement necessary to bring out the pleasing possible harmony in the facial lines is difficult to master. Probably few will ever master it. The professional portrait painter can teach us much, but it will only be in a general way. He cannot know what is possible nor what is practicable with the orthodontist. We must study art broadly, and especially must our knowledge come up through the light of orthodontia as an entirety. Much good work is yet to be accomplished, and, let me repeat, it must come for the most part from the orthodontist. Each year I hope we shall have reports of good work in this interesting field.

**Problems in** Again, there are several phases of occlusion  
**Occlusion.** about which we need to know more. One point over which many of us have doubtless been perplexed is that occasional case where, after placing

all of the teeth of each arch in their correct mesio-distal relations, there is still an apparent disparity in the sizes of the arches. Is this true, and does nature really err in the proportionate sizes of the upper and lower arches? Or is it because the angles of inclination have been wrongly placed? Or is it due to what we might term "malocclusion from the improper adjustment of the heights of the molars?" Or is it due to a combination of these causes, in some instances and to unknown causes in yet others? I hope we shall have a paper at our next meeting dealing with this interesting phase of occlusion, and one, too, that shall settle



## ITEMS OF INTEREST

these points, for it would seem they should be within quite easy possibilities of determination.

I have shown in my last book that pronounced development in both alveolus and jaws follows correct adjustment in well defined cases of malocclusion. This fact means so much to both orthodontia and rhinology that we need to know to what extent these changes really take place; what ages and conditions most favor such changes. I hope all our members will have facts bearing on this point later.

### **Committee on Literature.**

I would also strongly recommend that a committee be created during this session whose duty it shall be to make careful report at each annual meeting of all literature and inventions of the year pertaining either directly or indirectly to orthodontia; also that this committee place upon exhibition each year all appliances, both ancient and modern, also anatomical, histological and pathological specimens, and anything pertaining to art that they may deem of interest to the society. I would suggest that this be a standing committee. The importance of this work in after years, if it be thorough, is not easy to estimate. It is well known that in orthodontia, as in other branches of dentistry, there has been in the past much carelessness in the matter of recorded dates of research and supposed inventions.

There are many more points of interest which I should like to set forth and elaborate upon, but there are so many papers to be brought before us that I will close, hoping and believing that in all our deliberations such kindness of toleration will be shown to individual opinion as becomes a true professional spirit and a desire for progress.

### **Discussion.**

**Dr. Joseph Head.** I am very much obliged to you for calling on me, but I came into the society of orthodontists to learn and not to teach, for while I am very much interested in the subject and should be very sorry if I felt that I should not be able to give a certain amount of time to it, I think it is a subject that should be relegated to specialists; still there are some few minor troubles that we as general practitioners can successfully meet, as the field is so large and there is so much at stake. Too frequently we are tempted to extract teeth that ought to be kept, and too frequently we are tempted when we see a case that has been in the hands of a fellow practitioner, to feel that he has extracted teeth that we would not have extracted; and so it tends to make a general turmoil because the subject is not thoroughly understood, and where the evil is not thoroughly under-



## ORTHODONTIA

stood it is a little bit difficult at times to be charitable, because charity, I think, is most apt to be where knowledge exists, and where knowledge is superficial we are apt to give superficial opinions and think we could do better in such a case, where perhaps if we had tried that same case we might feel that it presented difficulties that we might not have been able to meet. So with broad faith, generosity and professional spirit I most heartily commend everything that Dr. Angle has said as regards the necessity of making orthodontia a special branch of study in dentistry, and I hope that everything that can be done will be done to make this branch thoroughly successful so that it will be an absolutely correct science; so that every child who puts himself into the hands of the orthodontist may in due time have the features that Divine Providence intended him to have, rather than the features which the dentist thought Divine Providence intended him to have.

I think the time is particularly suitable to  
**Dr. Barnes.** take up this subject. There is but little knowledge as to what takes place in the alveolus, but now we have the X-ray, and I think we can learn a good deal if we use it a little more. That is, take the pictures before we start work and then during treatment, and in that way I think we would get some results that I do not know have been obtained so far. We can move teeth, but we cannot get hold of that cadaver well within the range of a good many years, and possibly not then, and we cannot know the final result.

I entered the room too late to hear the President's address, but I have heard enough of the discussion to understand that there was a recommendation to have this branch relegated to the hands of specialists. That is a proposal that meets my hearty approval. It is a subject I have dealt with from the student's and practitioner's standpoint for nearly twenty-seven years, and it is only during the last few years that I have realized the importance of the teaching upon this subject and for a more definite standard, especially for the younger men. I recognize the great importance of obtaining information, skill and knowledge in regulating and correcting irregularities of the teeth for one reason especially, that in everything we do we gather a certain amount of knowledge; it grows with us until we have professional skill, but all the time we are growing older and in no profession do we feel that growing older is a detriment so much as in the practice of dentistry. In law, medicine, theology, indeed in teaching even, we gather knowledge that becomes valuable, and the older we grow the more valuable we become to the community and to our science. That is not true of dentistry, for after we pass our fiftieth year and we begin to grow older, it is the younger men who





## ITEMS OF INTEREST

are sought, and the man with all the information and skill he has garnered for years, in the mind of the public, becomes a back number.

In orthodontia I recognize that the same conditions apply as to the physician; he gathers knowledge and becomes more and more valuable, and when he has reached fifty years he has something which will give him an income and growing practice in old age, a thing which is not true in the same sense in any other department of dentistry.

Whenever I hear our worthy President say anything about orthodontia I feel almost ready to drop all general practice and go into this special branch of our profession. During the discussion of the President's paper I was impressed with the importance of occlusion and the recognition of these laws which originated in the minds of our President, and in the address he has given us he has laid out other lines of work that are sure to bring forth fruit that will be of equal importance to us.

The line of practice as a general practitioner is very different from that of those who give attention to these special branches, and while I, as a general practitioner, still hold on to my general practice, I am happy to say that I have gotten so far along as to give two days every week to orthodontia, and in that way I am approaching that point where specializing will be my forte.

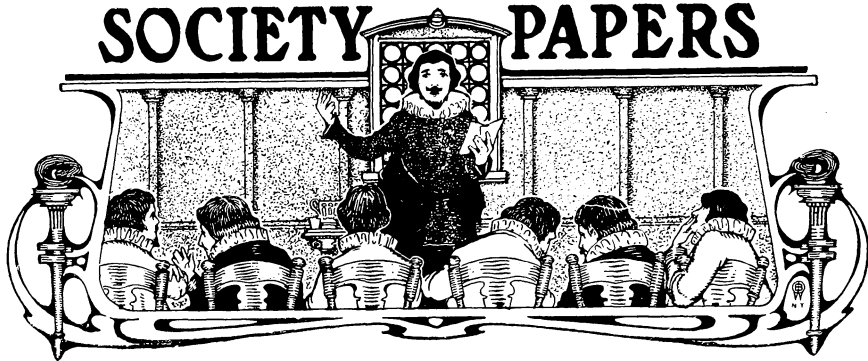
It is a great pleasure to see what can be done along this line of dentistry. While I am not rapid in my work, the system which I have adopted in the correction of malocclusions has shown itself to be so superior to all other systems that it makes me feel more and more in love with orthodontia. The fact of having this law of occlusion set so plainly before us and then having a definite and fixed system by which we can correct these deformities makes it a great pleasure to work in this line.

I think the researches and plans of work which Dr. Angle has outlined will culminate in lasting and definite results.





# SOCIETY PAPERS



## Practical Bridgework.

BY EMORY A. BRYANT D.D.S., Washington, D. C.

*Read before the Second District Dental Society, Oct. 13, 1902.*

I thank you for the honor conferred upon me tonight and the privilege of addressing you. To the executive committee, I desire to express my sincere thanks for the recognition accorded me by their kind invitation extended, and only hope that my efforts will justify their action. To the members of the society I can only say I shall do my best to please you, and if I do not do so, do not blame me but jump on Dr. Ottolengui; he is to blame for the whole thing, and as he is not as sensitive to criticism as I am, being more used to it, I am anxious to unload the responsibility before I begin. He is not only responsible for my being here but for the title of my paper also, "Practical Bridgework."

When you received your notices as to the subject, I expect you were somewhat puzzled as to just what you were to hear, and I can say frankly I was in just the same predicament when I received the title.

If it had been "Bridgework" alone, that would have been a subject with an unlimited field to handle. "Methods of Bridgework," would also give an essayist quite a broad range with a chance to bring out personal methods as well as ideas and inventions without fear of criticism, but "Practical Bridgework" is a subject that requires handling with care, or one may find himself in deep water, a heavy sea and a flimsy craft that is





## ITEMS OF INTEREST

not altogether comfortable to sail in. I am considered a pretty fair sailor, and breakers ahead as long as they are seen in time, may be avoided, but hidden rocks even in a smooth sea are always dangerous, and it is the "rocks" I want to avoid tonight.

Papers are, to a great extent at least, the personal views of the writer's, and therefore considerable latitude should be allowed as to the field covered, as well as in the use of the pronoun "I," without receiving that criticism which would naturally come to one merely talking to friends.

Sixteen years out of college, fourteen of which have been spent practically in the specialty of bridgework, should have given me experience enough from which to form opinions of some practical weight. They may not all meet with your approval, but there may be some points that will do to think over.

We are all specialists in a way, inasmuch as no matter what class of work we are engaged in, each operator must depend upon his inventive ability to make his ideas and the methods of others a success in his own hands. It is a peculiar thing, but it is a fact nevertheless that no matter what method may be explained to us, we may accept the principle, but the application, never. We add to, or subtract from, to suit our own ideas every time, and to that fact we may attribute the many successes made by the individual practitioners as well as their various improvements and inventions. If this were not so, invention and progress in our profession would cease and we would become a set of automatons.

### **Choice of Methods in Bridgework.**

You will understand by this that I do not expect you to adopt my methods to obtain results that may be called "Practical Bridgework," but I do expect you to accept the "principle." Practical results may be had from almost any method, either permanent or removable or in a combination of the two, but they cannot be had in every case by any one method yet invented. By that you will readily understand that I mean the method must fit the case and not the case be made to fit the method. In choosing a method for a case we must first look for strength, not only of materials to be used but of the finished product. Utility must be first in mind; artistic effect is a secondary consideration. I would sacrifice artistic effect when necessary to obtain strength and utility for bridgework in the mouth, just as a civil engineer will in the case of a railroad or wagon bridge; at the same time I would make the bridge upon artistic lines just as nearly perfect as it can be without encroaching upon the strength required to fulfill necessary service of mastication. Of what use would be a railroad bridge which was made too light to stand the train traffic for which it was intended, no matter how artistic it might be, or



what virtue would there be in a bridge made for a mouth that would not withstand the service of mastication, though it might be so artistically perfect as to defy detection.

Not only must the bridge structure itself be of requisite strength, but the abutments and the attachment between abutments and bridge must be equally strong, as no completed structure is stronger than its weakest point. Granting then that my principle of strength is right, we may look over the field of methods and try to find one that can be used in the great majority of cases which can be depended upon to have the required strength and that will come out of the investment and final soldering in such condition. In other words, the method that entirely eliminates any guesswork in the process.

**Methods Requiring  
Soldered Facings  
Condemned.**

This requirement alone sets aside all such methods as require soldering of the porcelain veneers or facings upon either the bridge structure or the abutments, for I do not believe the man lives who can say that he is absolutely sure of such a structure coming out of the final soldering of the assembled parts with no facings checked or cracked and the solder having flowed to every desired spot. There is danger in these cases in every soldering from start to finish, in addition to possible warpage in large and extensive cases. Repairs to such structures are problematical so far as strength is concerned, and in most cases they weaken the structure itself. My own repair method, which is almost universally used throughout the country, has this fault: you get the full strength of the facing, but you have weakened the structure itself just to the extent that you have countersunk for the reception of the nuts which hold the facings in place. Drilling holes and riveting with the various tools in use for that purpose is as a rule still less satisfactory.

For these reasons and more that I might enumerate, the soldered facing bridge cannot be considered "practical bridgework." I do not mean to say that such bridges should not be used, but I do say that a soldered porcelain faced bridge is not "practical bridgework" from the standpoint of strength, and repair of such work is generally a makeshift.

I will go still further and say that a soldered porcelain faced bridge is not "practical bridgework" from either the standpoint of strength or of artistic effect, nor is it a necessity. There are methods where the facings used are not soldered with which everything claimed for the soldered work can be duplicated, and which has none of its failings. Some of these are manufactured and on the market. It is true that the dealers do not keep on hand a large stock of these facings at the present time, and this fact serves as a detriment to their general use, but as demand generally



## ITEMS OF INTEREST

brings supply, the profession itself must bear the blame for this condition.

### **Claims for Originality.**

It has not been necessary to go to the dealer for a manufactured article of this kind since 1890, at which time I introduced a system of bridgework, the facings of which are not applied by soldering and which method requires nothing but a little skill and the teeth or facings used in the soldered work. I used this system till some three years ago I improved upon it by simply making one cylinder or box instead of two, and by making the two pins practically one by applying soft solder between them. These methods allow the dentist to be his own manufacturer and give him the entire field of manufactured teeth to select from, in order to suit each individual case. If our profession does not take advantage of this fact, it is not because I have not tried to enlighten them as to the jewel on their doorstep. It is easy enough to show you how to do something, but it is another thing altogether to get you to do it. I am not the only one, by any means who has failed in this particular line; "there are others." I am only advertising myself tonight, so I will leave the other fellows to register their own complaints.

This reminds me of a story a friend of mine told me. He said that the dental profession was the greatest combination of philanthropists and thieves in the world. I wanted to know how that was, and he said every Jack of them has some method, or system or idea that he insists on giving to all the other Jacks, and the other Jacks are always ready to steal them and claim the credit. We were attending a convention at the time and to prove his assertion he rose up and got the floor to discuss the best method of treating the roots of diseased teeth, saying that he had always had the greatest success in this line by using coal oil as a disinfectant, and that he believed he was the only dentist who had ever used this product for this particular purpose. Immediately a cadaverous looking individual in the rear of the room jumped to his feet and said: "Mr. President, I am certainly surprised at the assumption of the gentleman who has just spoken, and I wish to impress it upon his mind that I have been using coal oil as a disinfectant in the treatment of diseased roots and with the greatest success, for the past thirty years, which effectually disposes of the gentleman's ridiculous claims."

Whenever I want a little glory all to myself and make some rash claims as an inventor, I generally tell this story somewhere near the end of my paper, so as to scare away any would-be competitor in the claims department. This is where I differ from my friend, Dr. Ottolengui. He makes a claim with a string tied to it in the form of an "appendix" which he springs unexpectedly, driving his opponents into "innocuous desuetude." My plan does not involve so much extra labor and is just as



effectual. I am not using it this time to end up with, but merely to switch off a little on the subject.

The mechanical possibilities to which bridge-  
**Uses for Bridgework.** work in one form or another and its combination with plates may be applied, are simply innumerable. There is hardly an operation for the replacement or retention of teeth to which it cannot be of great assistance, if not cover the entire case, except in edentulous mouths. There is not a case of partial loss of teeth to which it is not applicable in some form. In cases of pyorrhea or teeth loosened from any cause, it is indispensable, if their retention is possible. It is feasible in many cases of regulating. It has invaded the field of surgery as an assistant in fractures of the maxilla.

Our eminent practitioners who have made a specialty of cleft palates and other diseases of the oral cavity have been compelled to call upon

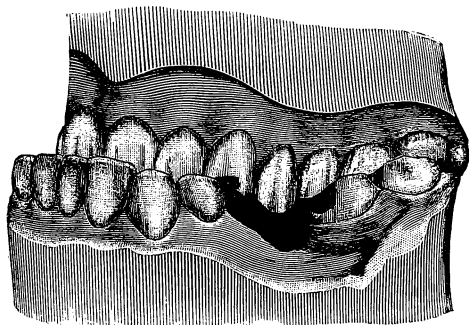


Fig. 1 A.

These models represent the original condition in an extreme case of "short bite," due to age and abrasion of the teeth.

crown and bridgework to help them out of precarious positions. It has even invaded operative work, replacing gold fillings that it has hitherto been impossible to retain in place. It has practically made such a thing as extraction of teeth or roots of teeth a disgrace. All this it has done when in the hands of men of mechanical skill and judgment, and when it has failed to accomplish the work it was intended to do, you may rest assured that it was not the fault of bridgework, but of the man who manipulated it, or the patient who wore it. The system itself is invulnerable. There is absolutely no argument that can successfully be brought against it, that is based on scientific grounds. There may be mistakes in its use or from the methods used in construction that open loopholes for fault finding, but these are faults remediable by men or methods. In combination with plate work, it has enabled us to handle cases in a very satis-



## ITEMS OF INTEREST

factory manner, that without its aid it would have been impossible to have accomplished anything at all.

### **The Author's Clasp Denture.**

Some eight or nine years ago, I had the good fortune to invent a clasp to be used in conjunction with bridges and crowns for the retention of partial plates and as an attachment between abutments and removable bridges. I gave a clinic upon this subject before the Connecticut Valley Dental Association soon after, and also one before the First District Society of New York and wrote an article describing the same which was published in *ITEMS OF INTEREST*, September number, 1894. The results of these efforts so far as getting the dental profession to adopt the system were as usual, nil. I have used the system continuously since I invented it, and can safely say that without it, my confining myself to the specialty of crown and bridgework would have been a failure. There is hardly a case that I handle today that I do not have use for this clasp, and there is not one case in ten that could be made satisfactory to the

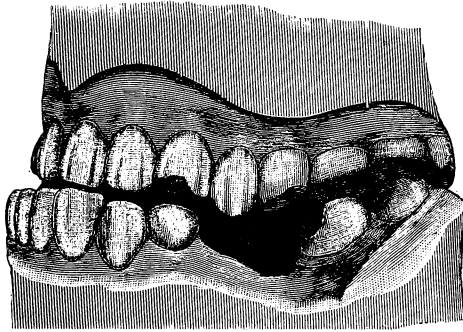


Fig. 1 B.

These models show the same case opened to show extent to which the jaws were opened by the bridge used.

patient without it. It has made bridgework "practical" in my hands, which means in plain English successful. Dr. Ottolengui happened to see a case in practical operation in the mouth of one of my patients and concluded that it would be of interest to the Second District Society and insisted upon my coming on for the purpose of giving you enlightenment upon the subject. My past experience was not such as to make me enthusiastic in the matter, but, nevertheless, here I am.

Some years after I brought out this system, a patent was allowed a friend of mine from my old home in Denver, for a removable bridge and the mechanical parts that go therewith. He has introduced the system throughout the country and is selling to the profession such parts



as can be manufactured and put upon the market. He has successfully introduced a successful product as well as himself and his name, and he deserves all the credit that he has acquired. I gave the profession an invention that in the hands of a mechanic who can successfully handle a case with the manufactured product of my friend, could also handle the same case with my invention and be his own manufacturer, with no more if not less labor. If you use my invention, you must be your own manufacturer, as it would be impossible to put any part of it upon the market, each part having to be made to suit each individual case. Evidently the profession got mine at a price it thought "was too cheap to be good." I am not averse to receiving financial returns from any source that is honorable, but my inventions as a rule are made in trying to utilize such products as are already on the market to the best advantage of myself, my work and my patients, and if the members of my profession can find anything in them that will benefit them, they are welcome to it, "free gratis."

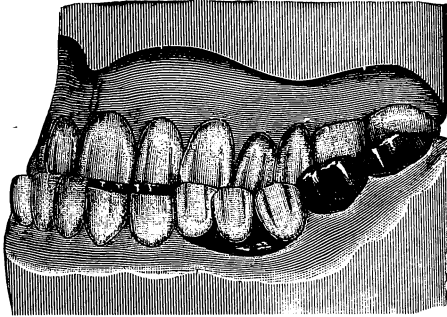


Fig. 1 C.

These models show the same case completed. The posterior bite has been restored with crowns. The anterior abutments are cast gold tips, with dowels entering root canals and attached to each other and to the bridge. The abrasion of upper cuspid was restored with porcelain inlay.

Any one hearing me talk would not think I am very retiring or modest, but I am, and I want to prove it right here. Look over any of my papers, lectures, journal articles, inventions or patented methods, and if you can find a single one that I have designated by my name, as is the general rule of the profession, such as "Bryant's Method of Bridgework, Crowns, Flaskholders, Bridge Repair Tools, etc.," I will agree to forego my claim to modesty forever.

I might say that my methods are the one "par excellence" for all cases where "practical bridgework" is to be obtained, but I am not going to do so for the simple reason that it is not. The only exception I will make, however, is when you have a case where the lower incisors pro-



## ITEMS OF INTEREST

ject up into what may be termed a long close bite and where, in such a case, my methods of attaching the upper six front teeth would require such thickness of the backing as to project these teeth too far to the front, making too much fulness, but as such cases are in the great minority, it is seldom I am called upon to use some of the other methods.

I hear a great deal about "close bites," of molars and bicuspid, on account of which, this and that method cannot be used. I wish to impress it upon you at this point, that close bites for bridges posterior to the cuspids should not be allowed. There are more failures and cesspools for filth made from this cause than any other, and when you take such a case in hand, the first thing to consider is to open the bite till you have room, or do not bridge. This is accomplished by different methods of procedure,

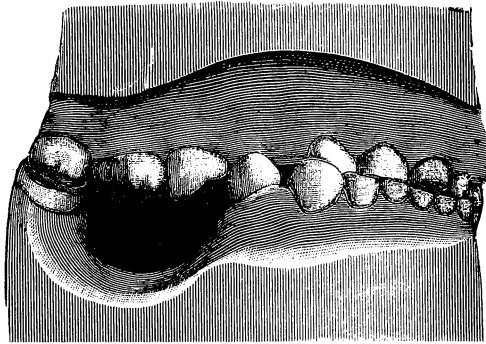


Fig. 2 A.

These models show a case of extreme closure of the jaw due to age and abrasion.

and depends upon conditions. You will generally find such cases are caused by abrasion of the grinding surfaces of such teeth as antagonize and elongation of such as do not. The bite should be opened to as near the normal as possible, generally shown by the degree abraded, and when necessary, the elongated teeth should be ground down to a normal length, even if the pulps must be destroyed in order to do so. I am not an advocate of destroying pulps except in case of necessity, and it will require more evidence than has yet been shown by its advocates to make me accept that principle.

The proper occlusion being settled upon, I cannot conceive of a case that will not allow the use of my method of attaching the facings for the bridge dummies of the bicuspid and molars. As this method is illustrated and described in the July, 1902, number of the *ITEMS OF INTEREST*, by



Dr. Hart J. Goslee, I will not take up your time in further description. By this method you can show as little gold upon the grinding surface of the bridge as can be done by any other method, soldered or otherwise.

**Combination Bridge and Partial Plates.**

In case of fracture or breakage of any of these facings a repair as perfect as the original can be made with ease and certainty. In combinations of bridgework with partial plates we have a field as large as that opened by bridgework itself and where results equally as satisfactory can be had, providing you use my method of clasping. We all know what trouble we have to contend with in partial plates with which we replace teeth lost posterior to the cuspids, both above and below. As I am not an advocate of so-called "saddle bridges," which are sometimes used to replace these missing teeth, and the usual clasp is of but little assistance in handling these cases, I wish to call your attention to what

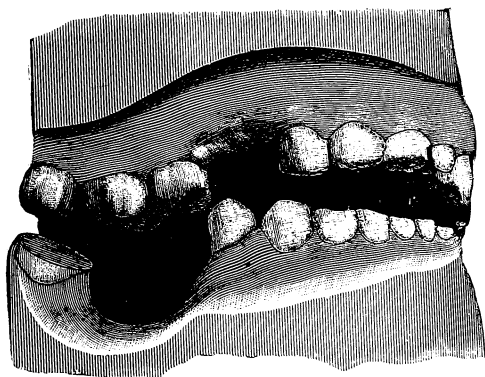


Fig. 2 B.

These models show the same case, and the extent to which it was found necessary to open the bite before bridging.

can be accomplished by the use of my clasp. Taking a lower partial case, all teeth missing posterior to the cuspids, the plate and the attachments of the teeth are the same in construction as for any clasp plate, but as I need to have guides for my clasp to grasp, I also must have the two abutment teeth crowned, in this case being the lower cuspids. If you are contented to use an open faced crown upon these teeth, the guides can be soldered to this, or if wedged to the show no gold idea, you can cut them off, and using my crown with replaceable facing, or the Mason, if you prefer, get the ends of the clasps to run in a groove instead of upon guides being soldered upon the sides. By this method you can insert a denture that is absolutely impossible to tip or raise up, and which never-



## ITEMS OF INTEREST

theless can be removed with ease by the patient, and which will not loosen the abutment teeth to which the denture is clasped.

In the upper the procedure is the same, using either a horseshoe plate or one covering the entire roof of the mouth, according to conditions. For removable bridges I doubt very much if there has been anything invented to date which will give the same stability to the denture without damage to the abutments, as this method of clasping.

Last, but not least, the greatest advantage is the fact that the dentist manufactures every detail of the structure from start to finish, from materials found in any dental depot in this or any other country and in making repairs, should they be required, the materials are always at hand to do so. The directions of the dentist to the patient at the time of insert-

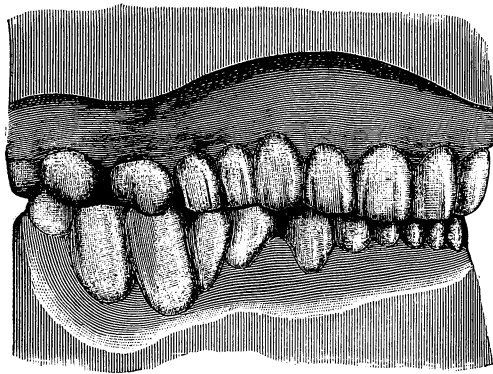


Fig. 2 C.

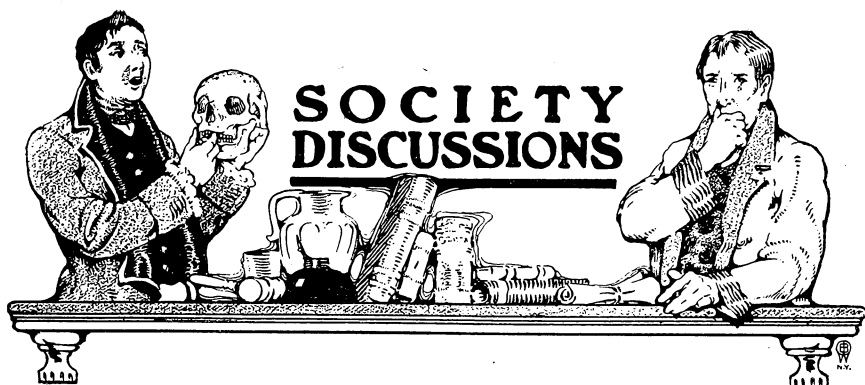
These models show the same case completed. In the upper saw the anterior teeth are restored with porcelain band crowns. Bridges fill the gaps, posteriorly above and below. The lower incisors were also crowned.

ing the work are such as to enable them to instruct any dentist who might be called upon to make a repair of a facing, no matter if the dentist never saw a piece of bridgework in his life.

This applies to the bridges, crowns and abutments, but in the clasping feature, that requires some knowledge of the method in order to make a repair, but you must remember the same thing applies to any of the manufactured attachments.

In ending up, I simply say to you, if you are not satisfied that the methods you are using give you all the results you should expect, then give mine a trial, and I will assure you you can come very near getting a result that you can term "Practical Bridgework."





## New Jersey State Dental Society.

Thursday, July 17, 1902.—Evening Session.

President Fish called the meeting to order.

The following applications for membership were received: Dr. Alfred H. Payne, Paterson, N. J.; sponsors, Drs. Pruden, Luckey and Duffield. Dr. L. S. Marsh, Hackensack, N. J.; sponsors, Drs. Duffield, Meeker and Hull. Dr. Harold A. Welsher, Newark, N. J.; sponsors, Drs. Duffield, Sutphen and Meeker. On motion the above applications were referred to the Committee on Membership.

On motion of Dr. Stockton a vote of thanks was extended to Dr. S. C. Slade, of Vineland, N. J., for his efficient work in maintaining and sustaining the dental law of New Jersey.

All of us who have read the papers at all have heard that Mr. Andrew Carnegie has given ten million dollars for the purpose of founding a National University in this country and that a Board of Trustees has been appointed in reference thereto. The object of the gift is to advance original work and it has been thought wise that the dental profession should make its claim. You will remember that the Central Dental Association of Northern New Jersey in April, 1902, even before Mr. Carnegie made this large gift, appointed a committee to wait upon him concerning this



## ITEMS OF INTEREST

subject, but it is now deemed wise to let the work of that committee lay over and to take another course, and that a committee should be appointed by this society to confer with similar committees that have been appointed by some ten or twelve of the other State societies throughout the country in order to take action upon the subject. I therefore move that a committee of one, consisting of Dr. Meeker, with power, be appointed to confer with the other gentlemen who have been appointed by the various State societies to take whatever action is necessary in order that the dental profession may receive benefit from this gift of Mr. Carnegie.

(The above resolution was regularly seconded.)

I do not like the idea of being a committee of one; I do not think it is right and I would like to have someone else on that committee with me.

**Dr. Meeker.**

Dr. Stockton has referred to the fact that last winter some time before Dr. Hatch propounded his scheme of asking Mr. Carnegie for funds to form a national association for bacteriological and original research generally, I had the honor of introducing in the Central Dental Association the resolution referred to and thereupon a committee of five was appointed, Dr. Stockton being a member of that committee. After reading the report of Dr. Hatch made before the New York State Society in May I felt that although New Jersey was the first to suggest the idea, yet it would be more feasible if all the societies in the country should go into the matter because in numbers there is always more strength and besides that it would give the undertaking a national character and the dental profession probably would be more apt to obtain recognition by that means than through the action of a single isolated society.

I am glad that Dr. Stockton has brought up this matter, but I hope that others will be nominated to act on the committee.

The resolution confers power on Dr. Meeker and as I understand it he has power to add to that committee. Otherwise I would nominate Dr. Stockton as a member of that committee.

**Dr. Osmun.**

I would like to have Dr. Stockton act with me.

**Dr. Meeker.**

A motion was then adopted, amending the original motion so as to make the proposed committee a committee of two, consisting of Dr. Meeker and Dr. Stockton, and thereupon the motion was unanimously adopted.

On motion of Dr. Meeker the resolution adopted at the last annual meeting providing that residents of other States might become associate members of the society was taken from the table.

On motion of Dr. Stockton the above resolution was regularly adopted.





## SOCIETY DISCUSSIONS



On motion of Dr. Stockton, Dr. Rodrigues Ottolengui, of New York City, was elected an honorary member.

Dr. J. Allen Osmun then read the report of the Examining Board, which was read and accepted.

**The President.** It is with very great pleasure I announce that we have with us this evening Dr. Jokichi Takamine, M.D., of Tokio, Japan, who will read a paper entitled, "A New Hemostatic."

**Dr. Takamine.** I feel highly honored in coming before you this evening. I take it not only as a personal compliment, but as one to my nation.

The subject of my paper, as the President has announced, is "A New Hemostatic." It is the active principle of the suprarenal gland of the ox. I come before you tonight, not only to tell you of this new hemostatic, but because of your well known interest in the progress of medical science I thought it well to draw your attention to it.

There have been many marked steps in the advance of medical science. One of the earlier important steps was the discovery of chloroform and ether; later on Pasteur announced the germ theory and more recently anti-toxin has been discovered. These and other matters illustrate the important progress in the science, and the isolation of active principle of animal organs is another important step in advance. Hitherto most of the medicaments have been obtained from either mineral or vegetable origins, and it is only in recent years that those of animal origin have come into use. In the animal kingdom there are many ingredients which are most beneficial in restoring health and it is only within a comparatively quite recent time that they have received attention.

The isolation of the active principle of this gland taken by itself may not appear to be of great importance, but it demonstrates that the active principles of the various organs of the human body may all be susceptible of isolation. If that be true the treatment of disease by medication may be very much simplified, and a cure become much easier. Therefore I have taken the liberty of bringing the matter to your attention and embrace this opportunity of speaking briefly on the subject.

### **New Hemostatic, Adrenalin. By Jokichi Takamine.**

Since Addison observed certain changes in the suprarenal glands in connection with the disease bearing his own name, many medical men of repute have interested themselves with investigations of the subject, which has led to the evolution of new evidences that the suprarenal medula possesses peculiar characteristics of physiological activity. The suprarenal therapy has thenceforth been successfully applied to different





## ITEMS OF INTEREST

branches of practice. The increase in the use of suprarenal gland as an important agent of medicine, has led experimenters to think of isolating therefrom the active principle, for which purpose scores of eminent physiologists and famous chemists had spent years without any material success.

Of late years Drs. Abel, of Baltimore, and v. Fuerth, of Strassburg, Germany, had respectively obtained from the gland substances which are not identical, but which were claimed to be the active principle, by the respective investigators. Whether both these were the active principle or not, could hardly be known, for a dispute between the authors had not been decided for a long time. The one author declared that his substance is real, while that which was isolated by the other was nothing but an inactive substance in which some proportion of his substance caused it to present some degree of the activity, peculiar to the glandular medulla. The other author entertained similar opinion in his own favor.

Being much interested in the question, I commenced researches and struck the right track, which enabled me to produce the active principle in a commercial scale and which is now largely supplied to medical men under the name of Adrenalin.

### **Preparation of Adrenalin.**

Suprarenal capsules are disintegrated by suitable means and steeped in water, preferably in water slightly acidulated with acetic acid, for several hours, during which period the temperature of the mass is kept within  $80^{\circ}$  C., stirring from time to time, in order to accelerate the completion of extraction. Toward the end of the manipulation, the temperature of the mass should be raised above  $90^{\circ}$  C., so that albuminous matters in solution might be as much coagulated as possible. Then the mass is strained, and to the residue as much hot water is added as slightly covers the mass. The whole is kept warm for an hour or two and again strained. Now both the first and second extracts are brought together in a vacuum pan where evaporation is continued until a desired concentration is attained. The thus concentrated solution is freed from as much inorganic and organic impurities as possible by adding required quantities of strong alcohol, thereby causing a sticky precipitate to settle on and around the wall and bottom of the vessel used. The clear solution is obtained by either decantation or filtration. This is again subjected to evaporation in a vacuum pan, which is provided with some arrangement to recover alcohol, until a certain concentration is reached. Ammonia, all sorts of alkalies, hydroxydes and carbonates will precipitate crude crystalline Adrenalin from this liquid. For medical use re-precipitation of the crude substance will be carried on until the incineration of the product gives only a trace of ashes.



**Chemical Properties  
of Adrenalin.**

Adrenalin is a white crystalline powder which comes in various shapes of crystals according to the mode of preparation. Fine micro-needles are, however, commonly met with. It has a slightly bitter taste and leaves a numb feeling on the spot of the tongue where it has been applied. In dry state it is perfectly stable, while moisture renders it susceptible of oxydation by the oxygen of the atmosphere. Hence it must be kept in a properly stoppered vessel, which insures it to keep unchanged for an indefinite length of time. Water dissolves it sparingly, while acids dissolve it with great ease, giving rise to the formation of easily soluble adrenalin salts. The aqueous solution of adrenalin soon assumes pinky color by exposure to air, which deepens to a beautiful rose red and finally to dark brown. The acid solution, however, is not easily oxydized; an excess of acid about 1:10,000 will keep the solution colorless for a long time. Alkalies hydroxydes also dissolve adrenalin very easily, and this solution is very apt to absorb oxygen from the air; an addition of an alkali solution to a neutral solution of adrenalin immediately causes the coloration of the latter. In fact the rapidity of absorbing oxygen appears to be proportionate with the quantity of the alkali. Alkalies, carbonates and ammonia are almost incapable of dissolving adrenalin. Ferric chloride colors an acid solution of adrenalin a beautiful fresh green which changes by addition of alkali to a carmine red after displaying different shades of colors, beginning with purplish pink. Acid restores the original green. Gold and silver salts are reduced energetically in their acid solutions. Fehling solution is also reduced, but this is hardly noticed if the quantity of adrenalin be infinitesimal (compare T. B. Aldrich's paper in the *American Journal of Physiology*, July number, 1902.) Alkaloidal reagents produce no precipitation except that basic lead acetate or any other reagents of similar nature, precipitate adrenalin in itself or in combination, of which latter I have not yet investigated. Iodine and all other halogens as well as any oxydizing agents color an adrenalin solution pink.

**Constitution  
of Adrenalin.**

Based on analysis made upon adrenalin I have given it an empirical formula of  $C_{10}H_{15}NO_3$ , which is supported by the fact that it needs 18.5 parts of hydrochlorine acid per 100 parts, in order to form a neutral salt. Yet the exactness of the formula cannot be decided until its chemical constitution is well established, which investigation has been prevented by my long extended trip to Japan, whence I returned only a month ago. I hope, however, to resume work on the subject before long.

**Adrenalin Salts.**

Although adrenalin combines with acids and forms crystalline salts, the latter are exceedingly deliquescent and hence they cannot be prepared ex-



## ITEMS OF INTEREST

cept as a dried mass. Its chloride solution in the strength of 1:1000 is durable and is now used by the practitioners with high recommendations.

**Physiological Properties of Adrenalin.** Adrenalin has not only all the properties required in a suprarenal extract but surpasses all in activity. A fraction of one drop of the solution of

either adrenalin or its salts, in the strength of 1:1000, blanches the normal conjunctiva within from 30 to 60 seconds. It is the most powerful astringent ever found. The intravenous injection of 0.000016 gram of adrenalin, in the form of chloride, upon a dog weighing 15.5 kilos raised the blood pressure to the height of nearly 9 mm. of a manometer. The quantity of adrenalin injected per kilo of body weight was only a millionth part of a gram.

The second test was performed upon a dog weighing 7 kilos with 0.000008 gram, under just the same condition as above, and it was found that the height of mercury rose up to 14 mm.

A comparative test on the same dog with a suprarenal extract revealed that adrenalin is fully 620 times stronger than the extract. Adrenalin used for the experiments was the first yield and its purification had not then been well studied, but now it exceeds the extract by a thousand times or more.

### **Therapeutic Applications.**

The therapeutic applications of suprarenal extract are already numerous and new uses are constantly found. Since adrenalin is the active principle of the suprarenal capsule, it can be used wherever the extract is needed. To give detailed accounts of meritorious effects of adrenalin in many cases of disease seem rather needless and therefore I shall only present a resumé. It has been used successfully in Addison's disease, coryza, epistaxis, hematesis, hematuria, exophthalmia, goiter and all sorts of heart disease. In affording a bloodless field in minor surgery of eye, nose and ear, it is especially valuable. Recently it was investigated by Dr. Reichardt who found that adrenalin is a useful antidote for the poisoning by opium and its derivatives. A case is reported by another experimenter of his having satisfactorily used it in a genito-urinary case. In dentistry, adrenalin will no doubt be found beneficial for constriction of spongy gums and checking the bleeding which may retard the work in general to no less degree. The adrenalin chloride solution diluted to a desired strength will make a gargle for stopping bleeding. In the cases where patients in the dentist's chair may have succumbed to the influence of ether or chloroform, he may be resuscitated by injecting adrenalin solution. Animals whose heart action ceased for a while under anaesthetics, have recovered by injection of suprarenal extract. If this holds true with human beings, adrenalin will of course be



## SOCIETY DISCUSSIONS

more efficacious and less dangerous than the extract, for the former can be obtained in uniform strength and in an entirely sterilized state.

**Dr. Joseph Head.** This is one of the most interesting papers that I have ever listened to on this subject. The remarks of Dr. Takamine on the new work that is being made on the glands of the body, that is gradually being laid bare to the world, so that the medical profession will in time know the real function of these glands, are of very great importance, and I am especially impressed with what he says concerning the extracts which are obtained from these glands. Of course, these extracts are not living material and are therefore probably somewhat different from the extracts which the living glands give out; still they approximate what those glands do and in so doing tend to show the direction in which these glands work. I think the remarks which Dr. Takamine made in the preface to his paper are extremely germane and will bear close consideration.

But concerning adrenalin itself I shall make a few remarks and propound a theory or two. The action of adrenalin in stimulating the heart, and therefore in resuscitating a patient who is suffering from heart failure under an anesthetic, is extremely valuable. It is a point well taken, and, in addition to the use of the other agents we have, will no doubt render the operating table much more safe than it has been in times past. But concerning its use as a hemostatic I wish to give a slight experience of my own, and also ask for information, because perhaps I have been misled by the individual test. When I was here last summer I arose at five o'clock in the morning, and while shaving in somewhat of a hurry, as I had but little time in which to catch my train, I cut a gash in my chin with the razor, and the blood simply spurted down over my shirt front, and I thought I would never make my train. Fortunately, however, I had a bottle of adrenalin, and, saturating my handkerchief with it, I put it on my chin, and in ten seconds the blood stopped. I finished my dressing in a great hurry and caught my train without showing the result of the cut at all. I reached home and went to work, but in the afternoon I put my hand to my chin and found it covered with blood, the cut having started to bleed again. The next morning it bled and it took a week or more for granulation to fill up that cut, while, if I had not used adrenalin, it would have healed probably in the course of two days.

Perhaps it has its good side and its bad side. Where we are making operations in the mouth where immediate healing is not desired or necessary, adrenalin is very useful, and I would suggest that it be used in any case where healing in the first instance is not desired, but whenever it is desired, some other hemostatic could be used wherever a hemostatic might be necessary.



## ITEMS OF INTEREST

**Dr. Takamine.** Dr. Head's experience is a very interesting one and there have been some cases where secondary hemorrhage was reported, but thousands of cases have occurred without it. The secondary hemorrhage, however, is not necessarily due to the use of adrenalin, but has possibly been due to the fact that the bleeding was so quickly stopped that but little attention has been given to the wound thereafter, and bleeding has occurred from a lack of care.

**Dr. Head.** The secondary bleeding in my case did not start itself. I think it was due to my rubbing the cut with my hand.

**Dr. Takamine.** Yes: in such cases the bleeding having been checked so readily its recurrence doubtless was due to the reasons I have suggested.

While of course I wish Dr. Head no harm, still I cannot help but think it was a pity in the interest of science he did not cut himself in two separate places, then if he had treated one cut with adrenalin and the other in the ordinary manner, the difference in the result of the two treatments would have shown conclusive results! (Laughter and applause.)

Secretary Meeker read the following notice:

"The Southern Dental Society of New Jersey is working to build a permanent dental library. Anyone having odd numbers of dental journals or any transactions of societies either National, State or local to dispose of, Dr. J. J. Halsey, Swedesboro, will be glad to hear from him."

On motion adjourned until Friday, July 18, 1902, at 10 a. m.

### Friday, July 18, 1902.—Morning Session.

President Fish called the meeting to order.

The Membership Committee reported favorably on the applications of the following named gentlemen, all of whom were unanimously elected: Dr. Alfred D. Payne, Paterson, N. J.; Dr. Harold A. Welcher, Newark, N. J.; Dr. Frank W. French, Plainfield, N. J.; Dr. L. H. Marsh, Hackensack, N. J.; Dr. Robert A. Sheppard, Englewood, N. J.; Dr. Guy H. Hillman, Plainfield, N. J.; Dr. Lionel W. Honaburg, West End, N. J.; Dr. W. C. Richman, Newark, N. J.; Dr. Sylvester Nestor, Newark, N. J.; Dr. William H. Gilston, Camden, N. J.; Dr. George W. Baxter, Newark, N. J.; Dr. F. K. Hazelton, Newark, N. J.; Dr. Samuel S. Haines, Moorestown, N. J.; Dr. Cromwell Ironsides, Camden, N. J.; Dr. E. E. Bower, Camden, N. J.; Dr. Samuel I. Callahan, Woodstown, N. J.; Dr. A. B. Dewes, Camden, N. J.; Dr. W. M. Kester, Bordentown, N. J.; Dr. F. H.



## SOCIETY DISCUSSIONS

Tomlin, Haddonfield, N. J.; Dr. H. G. Keller, Tuckerton, N. J.; Dr. Marcus Strausburg, Newark, N. J.; Dr. A. K. Woods, Camden, N. J.; Dr. Frederick C. McLane, Paterson, N. J.; Dr. Franklin Rightmeyer, Paterson, N. J.; Dr. C. E. C. Smith, Newark, N. J.; Dr. I. W. Claypoole, Paterson, N. J.; Dr. C. Alfred Hane, Jersey City, N. J.; Dr. E. W. Harland, Jersey City, N. J.; Dr. L. Graves Osmun, Newark, N. J.; Dr. Frank Crowther, Perth Amboy, N. J.

Dr. Duffield, from the Committee on Membership, reported that three applications had been laid over until the officers' midwinter meeting in January.

On motion the report was received.

Dr. Riley, from the Auditing Committee, presented the following report:

"The Auditing Committee on Treasurer's accounts have gone over the accounts and find the same correct."

On motion the above report was accepted.

The Treasurer presented the following report, which, on motion, was accepted:

Balance on hand July 1, 1901.....	\$665.78
Received from Membership Committee through Secretary....	128.00
Received from Dr. W. L. Fish, chairman of Exhibit Committee	499.00
Cash from dues.....	339.00

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\$1,639.78

Paid out, as per vouchers..... \$1,010.21

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Balance in Treasurer's hands..... \$621.57

Dr. Hindle, from the Executive Committee, presented the following report, which, on motion, was received and the suggestions therein contained adopted:

"It is with much pleasure that I present to you the report of the Exhibit Committee this year.

"While the exhibits speak well for themselves, it is with a great deal of pride that I report to you the fact that this year we have had with us sixty-eight exhibits, which I believe to be the greatest exhibit ever presented by any dental society."

Dr. Chase, of the Committee on Arts and Inventions, presented his report, which on motion, was received and placed on file.

Dr. Dawes, of the Registration Committee, presented his report, which, on motion, was received and placed on file.

Dr. Hindle, from the Exhibit Committee, presented his report, which, on motion, was received and placed on file.







### Report of Committee on Arts and Inventions.

Your committee on Arts and Inventions beg leave to report that they had quite an interesting exhibit. We feel that the field will develop, and that the work performed this year will bring forth fruit in the succeeding years. We call the society's notice to the exhibits as follows:

The air chamber former submitted by L. Arndt, D.D.S., of Jersey City, is a most convenient little instrument and should occupy a place in every dentist's laboratory. The flexible spatula, by Dr. B. L. Thorpe, of St. Louis, is a most convenient instrument in placing and forming cement fillings. Dr. D. A. Pullen, of Buffalo, submitted a neat and highly useful set of soldering clamps, especially adapted for use in constructing regulating appliances. No laboratory is complete without them. Another useful little appliance was submitted by Dr. G. E. Brown, of Chicago, a back action wrench for regulating appliances. All who have experienced the annoyance and tediousness of tightening nuts upon regulating appliances in the mouth, cannot help but appreciate this instrument. Dr. W. J. Worsley, of Dixon, Ill., sent a new form of dental separator, an instrument quite unique and designed to overcome the many difficulties in the use of other separators. Dr. M. L. Fay, of Buffalo, submitted a new mechanical refrigerant, consisting of a glass bottle and metallic cup with tubes running from the bottle to the cup, through which chilled water circulated. The cup is small and flat; it can be applied directly to the part desired, and in certain forms of pericemental troubles would be found very useful. Dr. D. C. Shaw, of Springfield, Mass., submitted a method of repairing and replacing facings that is simple, easy and efficacious, rendering the operation of repairing facings on bridges in the mouth quite easy and quick. This is not a patent but a method of operating. Dr. Shaw intended demonstrating this operation, but owing to a miscarriage of instruments he was unable to do so. He signified his willingness to do so at a future meeting. Dr. W. D. Allen, of Huntsville, Ala., sent an exhibit of aluminum dentures and his new furnace, whereby he is enabled to make durable dentures of this material.

The Registration Committee report the enrollment of 443 dentists and 98 exhibitors, as against 418 last year.

Buttons have been supplied to all members of the society, visiting dentists and exhibitors. We have canvassed the exhibitors and find the consensus of opinion favors the exclusion of the public on all days but one, and to make this effective, we suggest increasing the committee so there will be some member in attendance at all entrances.

Somerville, N. J.

TRACY H. DAWES, Chairman.



## SOCIETY DISCUSSIONS

On motion of Dr. Dawes it was resolved that a copy of the registry be sent to each of the exhibitors.

The Society then proceeded to the election of officers, the result being as follows:

President, Frank L. Hindle, New Brunswick, N. J.

Vice-President, H. S. Sutphen, Newark, N. J.

Secretary, Chas. A. Meeker, Newark, N. J.

Treasurer, H. A. Hull, New Brunswick, N. J.

One member of the New Jersey State Board of Dental Examiners, B. F. Luckey, Paterson, N. J.

Executive Committee: W. W. Hawke, Flemington, N. J.; Alphonso Irwin, Camden, N. J.; F. Edsall Riley, Newark, N. J.; W. G. Chase, Princeton, N. J.

Membership Committee: Joseph E. Duffield, Camden, N. J.; Tracey H. Dawes, Somerville, N. J.; Charles H. Dilts, Trenton, N. J.; T. Star Dunning, Paterson, N. J.; Walter Woolsey, Elizabeth, N. J.

On motion of Dr. Duffield it was resolved that a Committee of Five be appointed by the Chair to provide for the amendment of the present act regulating the appointment of jurors in this State, the object of which shall be the exemption of the dental profession from such service.

Dr. Iredel presented an invitation from Johnson & Johnson, of New Brunswick, to the members of this society to visit their factory.

On motion the above invitation was accepted.

On motion of Dr. Meeker a vote of thanks was extended the Hon. James H. Bradley, Mayor of Asbury Park, to the exhibitors and clinicians and members of the press for courtesies extended to the society.

The installation of officers was then proceeded with and concluded.

On motion adjourned sine die.

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### Second District Dental Society.

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#### October Meeting.

A regular meeting of the Second District Dental Society of the State of New York was held on Monday evening, October 13, 1902, at the residence of Dr. D. S. Skinner, 382 Clermont avenue, Brooklyn.

The president, Dr. Hamlet, occupied the chair.

The secretary read the minutes of the last meeting, which were approved.







## ITEMS OF INTEREST

The vice-president, Dr. Hillyer, then took the chair, while President Hamlet read the annual address. On motion, the address was accepted and placed on file.

Dr. Jarvie read the resolutions on the death of Dr. Hill.

**The President.** I would call upon Dr. Brockway to make a few remarks to the Society, in remembrance of our departed friend.

**Dr. Brockway.** I am not prepared to say much, but I cannot withhold my tribute to the memory of Dr. Hill. I had the pleasure of enjoying his acquaintance for a great many years. We usually agreed on most subjects, and when we did have a difference, it was a matter of principle with both of us. He was strenuous in his view of things, and I was equally so; but if we had any differences, they never left any bitterness. We always respected each other, and had an affection one for the other. To outsiders perhaps, when we met, that would seem almost impossible, because he had a playful manner, which many of you doubtless remember, of calling me very opprobrious names, but I well knew that he did not mean it. After he had reviled me for some time, he would take me in his arms and be as affectionate as could be.

My first acquaintance with Dr. Hill was back as far as 1862, I think. I know that I was struck then by his extreme earnestness and his executive spirit. He possessed that in a remarkable degree—the organizing spirit. To him was due very much of the impetus which prompted us to gather at the suggestion of the leaders in the movement and organize the District Society, and subsequently, in conjunction with the other District Societies, the State Society. In that Society he was always active and aggressive, I might say. He sometimes impressed people with being unduly aggressive, but he always meant it for the good of the profession.

Being a bachelor, he always suffered the chill which affects the man who must warm himself at another's fireside; but it did not affect his genial good nature. He was always agreeable and pleasant to those who knew him, and if any appearance of severity was noticeable in him, those who knew him best were well aware that it was "make believe," and that he really was full of geniality and good nature. I think I may speak for all, that we shall miss him more than we can express. He was, as the resolutions have said, almost always in attendance at the meetings, and few proceedings of the Society passed without his criticism; if they were not such as commended themselves to his good judgment, he was not tardy in opposing them. I think he has saved this Society from many a foolish venture, and, as I said before, and will say in con-



## SOCIETY DISCUSSIONS

clusion, I know when we meet here hereafter, we shall all feel that a valuable man and a good friend has left us.

As a member of the committee on resolutions, I  
**Dr. Van Woert.** feel that my sentiments are thoroughly expressed in the minutes made, and it would be impossible for me to add anything to them. You all know that as one of the younger members I was as closely associated with Dr. Hill in later years as any man in Brooklyn, and there is not a gentleman present, nor is there one absent, who knew him and will miss him more than I, nor one who appreciated more the many kindnesses received at his hands. I remember the first night when I made my debut at a society; he gave me the greatest raking over I ever had; but he did it for my good, and I have appreciated it since. It would be impossible for me to say what will be the loss to this Society. There is not a man among us who would be missed as much, if taken away, and whose interest for our good was as great as Dr. Hill's. If we could all follow the principles he tried to inoculate and which he practiced himself, we would all be much better men.

There are many things that I could say about  
**Dr. Jarvie.** Dr. Hill and that my heart prompts me to say. I first knew him in 1863, and from that time on we were the closest friends. We were associated together in almost every movement connected with the dental profession that has taken place in this section since that time, and during those thirty-nine years we never had a disagreement. Full of love and interest for the welfare of his profession, his individual likes and dislikes had no consideration at all, and in all the planning and arranging for legislation or for work in the societies, individual ambition had no place whatever. He always did what was best for the interests of this Society or the profession at large, and the many opportunities that came to him, if he had any individual ambition, were all cast aside. In fact, I do not think he had any individual ambition; he felt that an advancement for his profession reflected a credit upon himself as an individual member of it.

He was a kind-hearted man—the most tender-hearted I ever met in my life, without any exception. I do not think I ever met man or woman as tender-hearted as he was. In telling of some misfortune that had befallen a friend, I have seen tears roll down his cheeks, and he would sob. It is a phase of character that those who did not know him intimately were probably not conscious of in him. At some of our meetings, when discussion was warm and feeling a little high, as has happened sometimes in the last thirty-five years, one would little suspect a man of his strong personal feeling to have the tender heart and the kindly disposition that he had toward those in distress or trouble.





## ITEMS OF INTEREST

This Society has met with a great loss and will miss him. As has been said, his good sense and calm judgment undoubtedly kept this Society from many a foolish move, and personally I feel that I have met with a very great loss, for we were very closely allied and closely identified in many ways. It was rare when more than two or three days passed on which we did not see each other. It is my habit in the afternoon to take a walk, and generally, on the way home, I would stop in at his office. At 6 o'clock he was generally at home, and from 6 to 6.30 we had a little confab, and were like two lovers might be together—you would wonder what we could find to talk about; but the time until the dinner bell rang was always too short, and it was "Stay a little longer." You will miss him. I will miss him. The dental profession will miss him.

When I first met Dr. Hill, I looked upon him as an old man—but he was an old man who never grew older. He was an old man who remained young, and, being young, it seemed to me he was always the particular friend of the young men in his profession. He was a very powerful friend to any one who obtained his friendship. He was equally powerful as any enemy; but both in his friendships and his enmities peculiarly just. Whilst he was, I think, always my friend—and I am proud to say it—he was also the friend of men who were not my friends; and in any contention that arose between myself and them, I always knew that I could get justice by appealing to Dr. Hill. Dr. Hill would see that his friends would deal with me justly.

He occupied a peculiar position in this Society in its financial relations. Those who met him only in the Society might have supposed he was a miser. He was very close-fisted in regard to the Society's funds, but he was generous with his own money. He would unhesitatingly antagonize a draft on the Society's treasury for a banquet, and, having carried his point, be the first to subscribe for a dinner at which each man should pay for himself.

I think that the younger man in the Society will feel his loss as a friend and as an example, and I may almost say as the guardian of this Society. Indeed, I can scarcely do better than say the Second District Society has lost its Dean.

### Discussion of Dr. Bryant's Paper.

**Dr. Hillyer.**

Where do you draw the line between the removable and unremovable bridgework?



## SOCIETY DISCUSSIONS

**Dr. Bryant.** On loose and sound teeth only.

**Dr. Hillyer.** It makes no difference as to the extent?

**Dr. Bryant.** No; if the abutments are loose, you must have stability to hold the abutments solid, or they will come out.

**A Member.** What do you call good wear?

**Dr. Bryant.** Where they will give a person comfort for eight or ten years. Take the average filling today and it does not last over four years, and if we get eight years average from a bridge it is pretty good.

**Dr. Hillyer.** In an extensive bridge, how would you bring it down on the gum?

**Dr. Bryant.** The permanent bridgework I should bring as near the ridge as I possibly could, shaping them full at the bottom with rather a convex than a concave surface, going back so the points just strike the gum about the line where you would put in a set of plain teeth, without gums. The concave gives the natural feeling, but it also gives a ledge to deposit food on; the convex is more easily cleaned. Take almost all the soldered bridges, and they do not use the solder to fill them out. In my work you have nothing to worry about. You can solder four or four hundred times and there is no danger, while in the soldered work, where the facings are soldered, it is seldom that any one can re-solder without cracking the facings.

**Dr. Ottolengui.** I have been familiar with Dr. Bryant's work for a long period of years without knowing how to do it, and I had hoped when persuading the doctor to come here to-night he would show us how to do it. I induced him to come to my office this fall and do a piece of this work in my presence. It was an exceedingly pleasant experience. He did nearly all the work, the patient took us to dinner nearly every day and paid for the dinners, and I got the fees. I am in a position to tell you about some of the points that Dr. Bryant omitted. It was a mystery to me, and it may be to others, how the Doctor obtained this clasp that you have seen on these attachments. In the first place, he is obliged to make his abutment either on an all gold crown or else an open face crown; or, in some instances, he is enabled to get along with a crown that has a porcelain face. However, there must be an abutment at each end. To the sides of these crowns he solders platinum wire. This platinum wire is perfectly round, and is about 18 gauge, the Doctor says, but I think it is smaller. This platinum is placed on the side of the crown, in the position which has been designated by his instrument for paralleling. It is a very much more simple proposition to put that piece of wire there than





## ITEMS OF INTEREST

it would seem; that is why I allude to it. It is held on the crown with the fingers, and on each end of the crown a little mark is made, where it is desired that the wire should be, and with the very smallest quantity of solder this wire can be made to unite, either with the blow-pipe or by holding it in the flame. After the wire is attached, the off side is banked up with solder. Use 22-karat solder first and bank up with 20-karat solder, so as to avoid the danger of moving it. The clasp is made with a pair of ordinary round nose pliers. He has taken the temper from one nose and has ground away on each side so as to leave a little tongue, and on the opposite nose he has ground it so that they come together like a groove and tongue board. He takes 26-gauge clasp plate and bends the curved end first. That is fitted to the wire, and then the plate is gradually adapted to the contour of the tooth until it gets to the opposite wire. The second wire can be held in place with the clasp while soldering it to the crown.

Another point of interest to which Dr. Bryant has not alluded is this: He has told us of removable and fixed bridges, but he has not told us of an exceedingly ingenious combination of the two, accomplished in this way: Let us say he is going to use the bicuspid on each side for abutments. The incisors and cuspids are in place, and he desires to supply second bicuspid and molars on each. The fixture which carries the second bicuspid and molars is removably attached with his clasps. He unites the first bicuspid, the abutments along the palatal side, with a strong platinum bar, so that when the two abutment crowns are put in place, they are practically bridged together; thus the strain in mastication is resisted by the platinum bar which extends between the two. I believe in a great many cases this is the very best clasp that I have seen. The one objection I would have to it is the necessity for the gold abutments, and that means that I personally cannot bring myself to believe in an open face crown. Nor can I quite approve of cutting off sound teeth. Dr. Bryant is excusable for doing the work he does, because he is dealing mostly with gentlemen who have one foot in the grave, and all they need is something to eat with. It will last eight or ten years, and by that time probably the gentlemen will be buried with the bridges.

I am always a great admirer of anything ingenious, and there is no question but that this is a very ingenious appliance; but, at the same time, I feel just as Dr. Ottolengui does. In the mouths of young ladies the display of gold would be very unsightly, in the face of all that has been said, and the introduction of porcelain in its more perfect state. Unless in the cases of aged people and under circumstances stated by Dr. Ottolengui, it would hardly be as applicable as it would seem. That, however, does



## SOCIETY DISCUSSIONS

not solve the mechanical problem. The description given by Dr. Ottolengui of the combination of a fixed and removable bridge is identical with one used by Dr. Brown, of Brooklyn, for a number of years. I think, at least fifteen years ago, I saw a piece of bridgework placed in the mouth that is similar to that described by Dr. Ottolengui. I only speak of that to say it had been tried by some gentlemen in this city, to their dissatisfaction—not because the principle of the thing is wrong, but because it is a very difficult piece to make. The point I wanted to make is this: Dr. Bryant can probably do that because of his skill in manipulating it, but as an everyday appliance for the average dentist, I doubt if it can be made, unless the dentist had fixed tools and gauges by which it would be absolutely impossible for him to fail. If the work is left to the laboratory man who does not see the mouth, he is not equal to the situation.

**Dr. Ottolengui.**

He could not do it at all.

**Dr. Van Woert.** Well, I have seen some attempts made. I am speaking from the standpoint of a truly scientific mechanical man, and that is what Dr. Bryant is;

but, for instance, can I do that with days taken ahead for fillings, etc.? Can I give it to a man in the laboratory who does not see the mouth, with the satisfaction I ought to give to myself and the patient? When such appliances as these come up for general adoption, I am always afraid that the gentlemen who present them do not get proper credit; the men who try to make application of the principle fail because they do not give time enough to it, and then they condemn it, when it is their own fault and not the fault of the system. I want to give Dr. Bryant credit because he is a specialist in this matter and devotes his time to it.

**Dr. Rhein.** I do not believe I ever listened to a more interesting or better presented paper on the subject of bridgework from its practical standpoint than this

one by Dr. Bryant, and the discussion has been extremely interesting and entertaining. Dr. Bryant and I had a little tilt a few weeks ago at the National meeting at Niagara Falls, and I think it was the adjournment of the morning session that prevented it from reaching serious proportions. Since then we have become so friendly that we dined together this evening, and one of the astonishing facts I discovered was that I had been using this clasp for the past seven or eight years quite extensively in my practice. This evening I learned how it was that up to this moment I did not know that it was his clasp that I was using and that I frequently employed his method of inserting facings without solder. Since 1891, to my knowledge, no soldered teeth on bridgework have gone out from my office, outside of what is known generally as



## ITEMS OF INTEREST

the Mason tooth, which, however, I prefer to call the Van Woert facing, because Dr. Van Woert unquestionably invented that method, and there is no better time than the present to make that known. That and the Bryant facings have been the two in use in my office. It seems Dr. Bryant came into my office one day to show his method of bridgework, and was explaining it to Dr. Andrews, who has entire charge of that part of my practice, when I found out that he had this work patented. I proceeded to sit on Dr. Bryant in such a way that he looked upon me as a dire foe from that moment. It was my natural enmity to obtaining a patent for any operative procedure or process; but I frequently asked Dr. Andrews for the name of the man who invented that clasp, and he always told me he did not remember, and that is as far as I ever got until this evening.

Wherever we have used it, it has given the greatest satisfaction, and there are places where his facing has advantages over the Van Woert facing for various reasons—frequently a better artistic result can be obtained. We never know when an accident will happen, and a facing that can be used in this way is a great advantage. Of course, I cannot agree with all Dr. Bryant has said, especially on the question of fixed bridgework. I believe there is a great limitation to the utility of fixed bridges and where they should be used. In fact, the only point of criticism that could be brought against the admirable discourse we have had from the essayist is the extremes he appears to go to in what he has said; but from the very satisfactory and practical work I have seen here, I question whether he is not a great deal more eclectic in his methods than would appear. I do not believe he clings entirely to his own clasp for all cases.

Dr. Van Woert spoke about the lack of applicability of this clasp to cases where they would show in young people, where we do not want to show gold. While agreeing with Dr. Bryant that utility should be the first point, I think the artistic point can be worked in, too. This clasp is applicable in many cases without showing any gold at all. There are variations of the clasp that can be resorted to as far forward as the first bicuspid, without any evidence of it being apparent from the exterior. I merely want to call the gentlemen's attention to that one point.

I am very well acquainted with Dr. Bryant and  
**Dr. Perlie,** his work, and I can say that there is not a gentle-  
**of Washington.** man in this gathering who can appreciate the salient  
features of this work as I can, because I have been  
in his office. In reference to the crowning of the bicuspid and making  
them fast and steady with this platinum bar that Dr. Ottolengui men-  
tioned, the simple passage of the bar from one crown to the other is not



## SOCIETY DISCUSSIONS

exactly the Doctor's method. He has a certain way of securing it. I have seen a number of cases of that kind where, to look at the patient, you would never know that there was a bar there. It makes the work valuable in my mind. The cases he has shown to-night I have seen in the mouth, and it would be beyond my description to give an idea of their perfection. I owe a great deal of my present knowledge of bridgework to my friend, Dr. Bryant. I only wish the gentlemen could have the opportunity I have had of seeing those cases as they originally appeared, before and after operation.

Dr. Van Woert told us this evening of some cases that had been banded together to make a firm abutment for a movable fixture and which had proven unsatisfactory. The whole point comes in the failure or success of this clasp, and unless those fixtures that failed were made with these clasps, they have no bearing on the case. These clasps not only hold the plate in position but, on account of the length of the attachment and the double attachment to each crown, they prevent the tooth from rotating, and that is an additional security to the teeth already banded.

I more than thank the Society for the favorable criticism I have received to-night. Dr. Ottolengui has just brought out one of the strongest points of that clasp. A tooth can stand any amount of pressure up and down, but it cannot stand any lateral strain. The clasp holds it absolutely on both sides, so that there is no lateral motion whatever, and if they are made in perfect relation to each other, I have had cases, even upon loose teeth (which I do not approve of generally, but sometimes you cannot get out of it), which have stayed in sometimes four or five years—even were they were so loose, the patient could move the teeth with the tongue.

In regard to young people, I would say that my practice is almost entirely among old people. I suppose it is not once in three months that I get a patient in my office under fifty years old.

My advice to the young men who are entering the profession is not to take up bridgework and crown work as a specialty. Keep at the regular work, because you can then keep the family practice. I can see my mistake now, but I am almost over the bridge and must keep on. A specialist in this work gets only the older people, and he has nothing to look forward to in the future. The general practitioner starts in with the child and keeps on with his work often to the grandchild of that child. In that way your practice increases, but with the specialist you are limited to what your friends and your patients send you.

I am very glad to hear from Dr. Rhein to-night, and was surprised





## ITEMS OF INTEREST

when he told me he had been using my clasp and fixtures, because he "jumped" on me unmercifully when I came into his office. I took out the patent solely to protect Dr. Fanning and myself against the International Tooth Company, and Dr. Rhein never gave me a chance to explain myself, but went right at me. .

A vote of thanks was tendered to Dr. Bryant for his interesting essay.







## **Interchange of Licenses Between New York and New Jersey Suspended.**

The interchange of licenses between the States of New York and New Jersey has been suspended by a resolution of the New Jersey Board which reads as follows:

"In view of the fact that the Board of Regents of New York State has recently refused interchanges of license to persons holding licenses to practice dentistry from the New Jersey State Board of Registration and Examination in Dentistry, the New Jersey Board has determined that for the present, and until a better understanding of the matter shall be reached, it will decline to issue its licenses without the examination required by law, to persons holding licenses to practice dentistry from the New York State Board.

"This conclusion has been reached, not in a spirit of retaliation, but wholly for the protection of the members of our profession who have been licensed by this board."

It may be well to recite the facts which have **Causes of the Suspension of Interchange.** led New Jersey to take the action covered by the above resolution. So far as we have been able to learn, New Jersey has granted a license to all New York licentiates who have made application under the law; on the contrary, several applicants from New Jersey have been refused the recipro-



## ITEMS OF INTEREST

cal exchange, though twenty-two have received the New York license on application. It was the action of the New York Regents in relation to the last refusal which has precipitated the passage of the resolution.

It appears that the applicant had passed the New Jersey Board and was practicing under its license in the State of New Jersey. Desiring to remove to New York, he presented his New Jersey license and a certificate issued by the Commissioner of Public Instruction, which latter document stated that his preliminary education was equivalent to High School graduation, and he asked the New York Regents to grant a license to practice within the State of New York. The papers were taken, and the application for license subsequently refused, it then transpiring that the secretary of the Board of Regents had instituted an investigation into the status of the schools from which the New Jersey applicant had received his preliminary education, and as a result of such investigation decided that graduation from his last school was not equivalent to the thirty-six counts demanded in New York. It was not disputed that the man's dental accomplishments were ample.

Persons who receive their education within the State of New Jersey, when applying for examination in dentistry, obtain a certificate from the Commissioner of Public Instruction, and when such certificate states that the preliminary education has been equivalent to High School graduation, the Board of Dental Examiners are compelled to accept such certificate and proceed with the dental examination. The New Jersey Board then, not having the legal right to make investigations as to preliminaries in the presence of the Public Instructor's certificate, now resents the fact that the New York Regents should presume to do so, and it appears to be largely for the reason that the New Jersey Board feels that an indignity has been offered to their State that they have rescinded the interchange agreement.

To one who views the situation calmly, and from the aspect of the whole profession, rather than with the eyes of either New Jersey or New York, it seems unfortunate that this action has been taken or that the events leading up to it should have occurred. There are some things which New Jersey perhaps has overlooked and there are some of which the secretary of the New York Regents appears to be unaware, and these





will be dispassionately pointed out in the hope that the breach which is now apparent may be closed rather than widened.

**The Status  
in New York.**

No one at all familiar with dental educational matters will deny that the present high standards prevailing are very largely due to the high requirements demanded for the past twenty years or more by the laws of New York State, coupled with the fact that the Empire State has always been an attractive field for aspiring dentists, so that a school which could not promise its graduates an opportunity to pass the New York Board has always been handicapped. But there are likewise schools within the domain of New York, and whatever standards other schools might establish, the New York schools perforce are obliged to live up to the New York standards. A second fact must be presented, and then we may observe the connection. Between the dental students of all schools throughout the country there is an intercommunication fostered by their college fraternities, and information of value to the student is passed from one school to another with the swiftness of wireless telegraphy.

Thus, should it come to pass that one who enjoys a preliminary education not equal to the thirty-six counts demanded in New York could obtain a license in New Jersey which would enable him to exchange the same for a New York license, it is only too evident that such students would study dentistry in schools outside of New York to the detriment of those within the State of New York. It therefore follows that it is within the right of the Board of Regents of New York or of its executive officer, the secretary, to scrutinize the actual education of the applicants, and his so doing should not be construed into an indignity towards the Commissioner of Public Instruction of New Jersey. Right here we have an anomaly. The Commissioner of Public Instruction certifies that the applicant has a High School education, but this is a stage of education differing in every state, and what the Commissioner of New Jersey honestly believes to be the equivalent of a High School graduation, the Regents of New York may not consider to be the same as the thirty-six counts which is obligatory upon those seeking license within New York State. All of the above argues that the secretary of the Board of Regents may be conscientiously interpreting the New York statutes without intentional discourtesy to New Jersey.







## ITEMS OF INTEREST

But there is another side, and to this we would respectfully call the attention to the secretary of the Board of Regents. The Regents of New York are individually and collectively men of eminence, thoroughly well fitted for the great trust imposed upon them—the supervision of the educational matters of New York State. At the same time the greater part of the detail work necessarily falls upon the secretary, and thus the Board, in a sense, transmits its power to one man. This places that man in a position of great responsibility, and we may well sympathize with him in his effort to protect the interests of New York colleges and to uphold the law as he construes it. At the same time it is possible that he overlooks one important fact. It has been largely the example of New York State, which has saddled the dental profession with the burden of dental laws and dental licensing boards. Such laws may be necessary, but they have grown to be burdensome nevertheless, and weigh more particularly upon those practitioners who may desire to remove from one part of the country to another. The dental profession therefore has been most anxious to see some system devised whereby an interchange of licenses between States might be effected. New York and New Jersey have received great praise for making a start in this direction, and it had been hoped that from time to time State after State might have been taken into the agreement. Whilst the college interests in New York are great, we believe that the interests of the whole dental profession are even greater. Without any disrespect to the excellent schools in New York, it may be said that the profession would continue to prosper even though they closed their doors. In other words, the demand for interchange of license is greater than the demand for the perpetuation of any particular schools. Therefore, it would seem that, however strictly the law might be exerted against students at the beginning of their careers or against young graduates fresh from their *alma maters*, some leniency might be expected in connection with granting an interchange-license to a man already established in practice, desiring to remove his place of abode. The law says that the applicant must have High School graduation, thirty-six counts, or *the equivalent thereof*. This word “equivalent” is most important, and we think that its presence in the law provides the Board of Regents with that discretionary power which might well be utilized, and we trust that it is not too late for the secretary of the Regents





to view the matter in this light, and to make offer to the New Jersey Board to be more lenient in future when dealing with applicants legitimately in practice. We say legitimately in practice because, though we have said that the profession could continue without the New York Schools, that was merely by way of argument. As a fact, the New York Schools must be protected to the limit of that law which forces them to abide by a high standard for preliminaries. Consequently, it must not be possible for a graduate of an outside school to reach New York through New Jersey, as a preferentially easier road than to apply direct to the New York Board.

**The Status  
in New Jersey.**

It would seem that the New Jersey Board has needlessly allowed sentiment to influence their action in rescinding the exchange of license rule. Had they a school system within their borders, we are sure, from what we know of the personnel of their Board, that they would protect their schools against those of other States to the limit of the law. We also believe that did such a condition exist, or even as matters stand, had the New Jersey Board deemed it best to investigate as to the preliminary education of some New Yorker asking for interchange, the New York Board would not have felt it to be an indignity, nor would they have resented the action. In law and the conduct of legal matters, there is little room for sentiment, and there should be none. The New Jersey Board also overlook the fact that while protecting one class of its citizens they injure another by its recent action. The only persons requiring the certificate of their Commissioner of Public Instruction are those who may have obtained their preliminary schooling from New Jersey institutions. But many New Jersey dentists have undoubtedly been elsewhere educated, and all of these are now barred, although they would not have been subjected to that scrutiny which the New Jersey Board resents. It might be asked also, had the applicant so closely scrutinized by the New York Regents received his education, let us say in Illinois, would the New Jersey Board have so much objected to an investigation of the Illinois school?

On the whole, there seems to be but one plain duty for all concerned—there should be a conference between New York and New Jersey and interchange of licenses should be resumed immediately. The profession







of the whole country makes this demand upon New York and New Jersey. Otherwise a blow will have been dealt to a cherished cause.

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### **The Odontographic Society's Great Meeting.**

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The Odontographic Society of Chicago will celebrate its fifteenth anniversary by holding a meeting on February 16th and 17th, the magnitude of which will surpass anything ever attempted by a local dental organization. Five representatives from each State in the country have been asked to give clinics, and men from thirty-six States have accepted already. The essayists will be Drs. Kirk, of Philadelphia; Webster, of Toronto; Warrington Evens, of Washington; Carlton, of California, and Ottolengui, of New York. The papers by these gentlemen will be in the hands of the committee in advance, and distinguished gentlemen from various parts of the country will be prepared to take part in the discussion. The railroads have granted a rate of a fare and a third. No Chicagoan is to read a paper or give a clinic, the Chicago dentists devoting all their time to the part of hosts. A feature of the meeting will be the exhibits, space having been engaged thus far by over one hundred exhibitors. It is confidently anticipated that one thousand visitors will be in attendance.

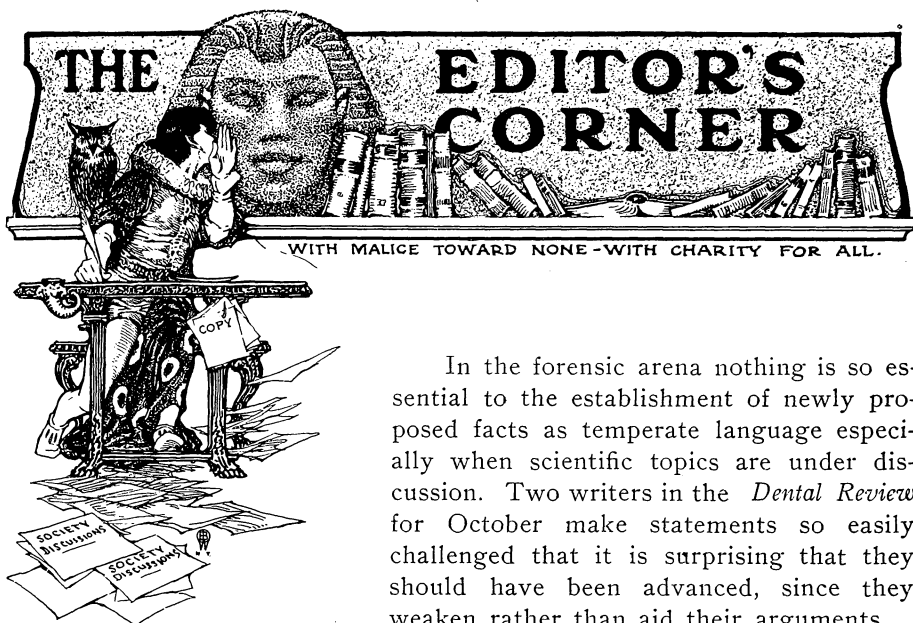
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### **Dinner to Dr. Stockton.**

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A complimentary dinner will be tendered to Dr. Charles S. Stockton, of Newark, N. J., at the New York Athletic Club on the evening of January 21st, 1903. The occasion is the celebration of the forty-fifth anniversary of Dr. Stockton's entrance upon practice. The committee signing the invitations include prominent men from New Jersey, New York, Pennsylvania, Maryland, Illinois, Connecticut and Massachusetts. Persons who may have been accidentally overlooked in the distribution of the invitations and who may desire to join with the others in honoring the dean of the dental profession in New Jersey should address Dr. Charles A. Meeker. This will be a particularly propitious time for visiting New York, as the dinner occurs on the night following the annual meeting of the Odontological Society.





In the forensic arena nothing is so essential to the establishment of newly proposed facts as temperate language especially when scientific topics are under discussion. Two writers in the *Dental Review* for October make statements so easily challenged that it is surprising that they should have been advanced, since they weaken rather than aid their arguments.

On page 811, Dr. H. C. Kahlo says: "It has been stated by some authority that the average life of a gold filling is about three years." This statement may have been made by some individual, but certainly never by an "authority." What would constitute an authoritative statement in this connection? What is meant by the "average life of a gold filling?" Is it the probable durability of fillings made by the entire profession or by specified individuals? Doubtless the author would say he means the "average" of all fillings made. But how can any scientific data be obtained to fix the usefulness of gold, if incompetency is to be reckoned with skilful manipulation, and the failures of the former be permitted to reduce the successful records of the latter? And even so, how are such computations to be made? Who has collated reliable statistics attesting such results? Positively no one. Then it must be admitted that such sweeping assertions should have no place in scientific discussion.

If statistics are ever collected they must be based upon the work of admittedly skilful operators. Only the failures of the method in its best would count against the gold fillings; all others are but the failures of men, statistics in relation to which must interest pedagogues rather than practitioners, since the failures of the fingers to an extent show weakness in the educational system.

On page 845 of the same issue Dr. A. C. Hewitt tells us that it



## ITEMS OF INTEREST

needs no argument to prove that recurrence of decay "usually if not invariably follows the best operations in gold" (and amalgam). On the contrary, it would require almost endless argument to establish any such false dogma. It would be interesting to have Dr. Johnson, the editor of the *Dental Review*, discourse editorially upon these two statements which he has admitted to the pages of his magazine. The Doctor is himself an operator skilled in the manipulation of gold. Will he admit that the "average life of his gold fillings" is but three years, or that recurrent decay is "usual if not invariable about his best operations?"

The truth is that if men of real skill in the filling of teeth with gold were asked—and about a dozen have been asked—the consensus of the replies would be that "a tooth properly filled with gold is permanently filled." Of course, failures occur, but aside from those due to faulty manipulation by men who may be capable of better things, the proportion is inconsiderable—very inconsiderable—and largely due to environmental reasons which will place such fillings in a class by themselves should the statistics ever be compiled. Let not the younger men be discouraged by these ill-considered statements. Let them continue to fill teeth with gold, aiming to constantly improve their technique, confident that they may achieve permanent results. A properly placed gold filling in a reasonably sound tooth should preserve the cavity in which it rests from recurrence of decay almost indefinitely—for ten or twenty years at least. The pages of this magazine are open for a free discussion of this subject. All that we desire is an established mode of practice based upon reliable statistics.

In our last issue we stated that ITEMS OF INTEREST for the New Year would be as good as ever and perhaps a little better. We leave it to our readers to decide whether the magazine in its new dress shows any improvement.

America has been called a commercial country, and the Old World has credited us with little of the artistic temperament. But the true art feeling is rapidly spreading in the New World. This is evidenced in almost any direction where art laws are at all applicable. It was conspicuously noticeable at the exhibition in New York last winter of the Architectural League. In connection with the construction of buildings were shown innumerable examples of art, including wall papers, wall decorations of all kinds, iron work, both for exteriors, such as gateways, and interiors, such as fireplace fixtures, lamps, etc., house furnishings of all kinds, etc., etc., and it was inspiring to note the upward trend of the art element. There is little doubt that much of this growth is due the public art galleries and exhibitions in general.

While realizing that dentistry was inevitably tending towards higher





## EDITOR'S CORNER

artistic attainments, it was with much of the feeling that the artistic inspires the artist that, when altering the general character of *ITEMS OF INTEREST* six years ago, an effort was made to give to its pages a more artistic appearance than had been attempted theretofore in dental journalism. To this end we employed specially engraved department headings as a feature of the regular dress of the magazine. These were very good as an initiative, but we have come to believe that something even better would be appreciated by our readers, and that by making the magazine even more than ever an exposition of the artistic, we would further encourage dentists towards higher aims.

In the new set of department headings presented with this issue, we think that our artist has aptly caught the feeling which we wished portrayed. It will be noted that the general scheme includes figures and that these belong to the classic period. The majority of these designs so fittingly illustrate their meaning that they require no explanatory terms. To one or two, however, we may refer. In *Prosthodontia* the two figures are merely symbolic of the pleasing countenance which it should be the aim of every prosthodontist to reproduce when the face is disfigured by the loss of any part of the dental ornamentation. In *Orthodontia* the scheme is a bit more subtle. The little child shows that class of profile which invariably accompanies that most common of the greater deformities, where there is upper prognathism and a retreating chin, causing the nose to be the apex of a triangle. The other figure shows what the skilful orthodontist may make of such a child, when she shall have reached ripe maidenhood. Well may the orthodontist be proud of producing such a face in flesh and blood. And is not his work comparable with the achievements of the sculptor or the painter?

In connection with the Editor's Corner some may wonder why the man is consulting the sphinx. If the inquisitive reader would glance over the editor's mail for one week, he would find a reply to his query. Verily, a Sphinx is needed to answer all the odd questions that are asked. Here is one, which will serve as a sample of the problems offered for solution: "What percentage of the people of this country suffer from caries, and of these what percentage have their teeth filled?" Anyone knowing the answer to this will please forward it for publication.

Of all the new headings we would ask that particular attention be given to "In Memoriam." A gentleman who is a *connoisseur* of such work said of the original drawing: "That is an inspiration. It is good enough to be done in oil." In the period of the old masters a much disputed question was the portrayal of the emotions. One school contended that the human face was prerequisite to expression of human feeling. Another argued that each emotion pervaded the entire body, and that



## ITEMS OF INTEREST

therefore each was accompanied by suitable attitude or pose, so that any correct rendition could be recognized whether the face were shown or hidden. Angelica Kaufman, that wonderful draftsman, was clever enough to execute a picture which combined both schools of thought. Some of the figures show emotion with the face concealed, while others hide the features. Our artist has gone further, and with only a very small part of the human figure and without the assistance of the face, he has given us "Grief" personified.

The use of engraved "top headings" is not only new in dental periodical publication, but we are told that it is new to the entire magazine world. We trust that the innovation will be considered a good one. One other new feature must be more fully explained. The little corner piece, carrying the word January, is not only a decoration but is meant to serve a useful purpose. When our magazine is bound in book form at the end of the year, as each month will carry a similar corner piece, the student who may consult its pages with the intention of quoting therefrom, will be saved the trouble of further search to discover in which month a stated article may have appeared, as wherever the book may be opened the name of the month will be in view.

The handsome new cover is an evolution from the old. The original design is so intimately associated with ITEMS OF INTEREST that it was thought best to improve rather than to alter the drawing.

We will welcome expressions of opinion on the new ITEMS OF INTEREST from those who may feel sufficiently interested in the magazine to communicate their views.

Dr. W. R. Fechney, of Providence, R. I., sends the following in reply to Dr. Haskell: "In answer to Dr. Haskell's question, 'Why dentists use so-called short-bite teeth?' I would say it is a God-send to prosthodontia that the factories make such a tooth. I will cite a case I completed last week in which no other tooth could be used. My patient was a woman. Her upper lip was exceedingly short and the gum very hard and prominent, although her teeth had been out for years. I procured the shortest tooth possible, with the pins very low and set them on the gums from bicuspid to bicuspid as high as the pins would allow. It was a complete success and my patient left the office very much pleased. Dr. Haskell ought to congratulate himself on never having a case in which the necessity of using a short tooth has occurred. That such cases are mean, I am quite willing to admit, and, unfortunately, it has been my luck to have several. In my opinion, it would be impossible to use any other tooth than the short bite in cases like the above."





# BOOK REVIEWS

## **A Manual of the Injuries and Surgical Diseases of the Face, Mouth and Jaws.**

By JOHN SAYRE MARSHALL, M.D.

Second Edition, Revised and Enlarged.  
S. S. White & Co., Philadelphia, 1902.

The second edition of this work is a large volume of over seven hundred pages profusely illustrated with wood cuts and half tones in the usual good style which is synonymous with the imprint of the publishers. That the second edition should have been demanded so shortly after the appearance of the first attests the success with which the work has been received, and that the author should have found it necessary so quickly to revise his work, and, as he tells us, bring it "up to date," is evidence of the continuous progress in surgery.

In a work which proclaims itself to be up to date, and which presumably was primarily written for the use of dental students it seems strange that in the chapter dealing with "Abscess" the text should be so general in character. There is little that deals specifically with the common dental abscess arising from infection through the death and putrescence of the pulp, and there is no mention of pericemental abscesses associated with living teeth otherwise healthy, nor of the acute abscess frequently found in connection with pyorrhoea alveolaris.

The chapter on Leucoplakia should be read by all dentists not already familiar with the disease, which would be considered far less rare if all



## ITEMS OF INTEREST

dental practitioners constantly watched for and reported cases found. The illustrations in color, while a little lurid, are sufficiently accurate to aid in diagnosis. The attention of the reviewer was first called to this disease through the work and illustrations of Dr. Marshall, and since that time has been able to recognize, treat and control a number of cases.

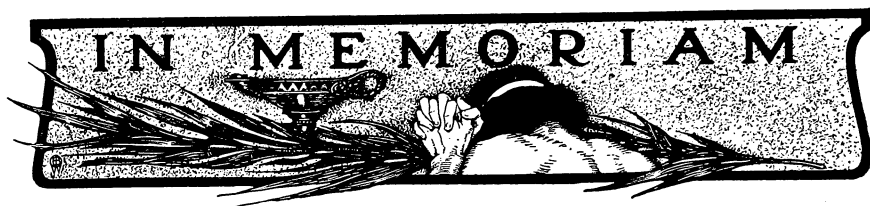
In the chapter dealing with the treatment of diseases of the maxillary sinus the author states definitely that the most dependent point of this cavity is "opposite the alveolus of the second molar;" considering the many anomalies of formation of this sinus it would seem that this statement might better have been expressed with some qualification; not infrequently the most dependent part will be much further forward, in some instances as far towards the front as the canine fossa. The author's recommendation, that after surgical treatment washes for the antrum should be of a bland character is wise advice that might be applicable in other localities. There is little doubt that dentists use much stronger preparations than are found efficacious in the hands of the general surgeon. He particularly objects to pyrozone and peroxide of hydrogen as remedies in the antrum, while admitting their efficacy as scavengers of bacteria. This also can be indorsed by all who have had unpleasant results from using these agents in abscesses having bony limitations. Once more the claim that this edition has been brought "up to date" is not fully sustained. In treatment of chronic antral disease no mention is made of an operation not infrequently utilized, the complete extirpation of the antrum by removal of the buccal wall, followed by measures which encourage the filling up of the cavity by granulation tissue. He does mention the operation of enlarging the normal opening into the nares which he properly deprecates as often insufficient, but he does not describe the more modern resource of establishing a second permanent opening into the nares leading from the most dependent portion of the floor of the antrum thus affording a ready means of washing out the cavity at all times.

The chapters dealing with tumors of the mouth, cover 250 pages and would make an admirable book if published as a separate volume.

R. O.







### **Dr. Jarius Searle Hurlbut.**

Dr. Jarius Searle Hurlbut died of apoplexy November 9, 1902, in Springfield, Mass. His funeral was attended by dentists from every part of New England. The members of the Valley District of the Massachusetts Dental Association attended in a body, and the Springfield Safe Deposit and Trust Companies were also represented by the directors of the institution. The immediate family and relatives sat near the casket during the services. The burial was in the Springfield cemetery. The bearers were Frederick H. Sampson, of Springfield; Charles B. Sampson, of Holyoke; Walter C. Sampson, of Summit, N. J.; and Dr. D. Hurlbut Allis, E. Milton Allis, and Dr. C. S. Hurlbut, Jr., all of Springfield.

Among the honorary bearers, a body of men selected from among the closest professional, business and personal friends of the deceased, were Dr. John Dowsley, of Boston; Dr. George Mitchell, of Haverhill; Dr. William H. Pomeroy, Nathan D. Bill, Louis C. Hyde, H. P. Stone and C. C. Rogers, of Springfield; James G. McIntosh, of Holyoke; Dr. James McManus, of Hartford, and Dr. L. D. Shepherd, of Boston.

Jarius Searle Hurlbut, D.D.S., was born in West Springfield, January 5, 1842. He was one of six children, five of whom were sons; of these, three died at the age of twenty-one. When Dr. Hurlbut was ten years old, his parents moved to Springfield, Mass. He graduated from the High School in that city in the year of 1860. Soon after he went into the office of his brother, Dr. C. S. Hurlbut, Sr., with whom he was associated for several years as student and partner. He attended the Philadelphia Dental College, graduating in 1865. In this class was Dr. McManus, of Hartford.

After graduation he was in poor health and went to St. Paul, Minn., where he practiced for a year. In '66 he returned to Springfield and opened an office in Shaw's block. Here he remained for twenty-six years. In 1893, when the Masonic building was completed, Dr. Hurlbut, with his nephew, Dr. Allis, leased the corner suite of rooms.

In the Connecticut valley the name Hurlbut almost suggests the word dentist, for three of Dr. Hurlbut's brothers and two of his nephews have





## ITEMS OF INTEREST

studied for the profession. The older brother, Dr. C. S. Hurlbut, died in 1900 and is succeeded by his son, Dr. C. S. Hurlbut, Jr. Dr. J. S. Hurlbut is succeeded by his nephew, Dr. Hurlbut Allis, who has been connected with him for the past seventeen years.

But Dr. Hurlbut's reputation was national. Joining the Connecticut Valley Dental Society in 1866, he served as an executive office or president. He was a member of the Valley District and the Massachusetts Dental Society, serving this society as president, orator and member of the executive committee. He was a member of the Northeastern Dental Association, the American Academy of Dental Science, the National Dental Association and the Odontological Society of New York.

On the passage of the State dental law in '87, he was appointed, by Governor Ames, a member of the board of registration. From 1891 to 1895 he served as president of this body and was also president of the American Association of Dental Examiners. In '93 he was a member of the International Congress.

### **Resolutions Passed by the Valley District Dental Society.**

It is with deep regret that this society learns of the death of our esteemed fellow-member, Dr. J. Searle Hurlbut, of Springfield, on November 9, 1902, and we desire to express in a formal manner our appreciation of his life and a sense of the loss we have sustained.

Dr. Hurlbut commenced the practice of dentistry in Springfield in 1865, having graduated from the Philadelphia Dental College that year, and during all these years he has stood firm for the upbuilding of his profession. He was a member of the old Connecticut Valley Dental Society—the leading dental society in New England—from 1865 until 1895, when it was merged into the Northeastern Dental Association, of which his membership continued until his death. He became a member of the Massachusetts Dental Society in 1873, and was thus one of the original members of this, the Valley District Dental Society. He was also a member of the American Academy of Dental Science of Boston, of the Odontological Society of New York and of the National Dental Association. He was honored as president by the Connecticut Valley Dental Society in 1873 and by the Massachusetts Dental Society in 1874. When the dental law was enacted in this State in 1887 he was appointed by Governor Ames a member of the Board of Registration in Dentistry. In 1891 he was made president of this board, which office he held until he resigned his membership in 1896.

By his strong personality, his broadly cultivated views, his refined manner and dignified bearing, he was one of the leaders in influencing an intelligent public to that just appreciation of the dental profession which later years have witnessed.

*Resolved*, That in the death of Dr. J. Searle Hurlbut the members of this society feel they have sustained a personal loss and the dental profession one of its eminent members.





*Resolved*, That we extend to his wife our most sincere and heartfelt sympathy.

*Resolved*, That a copy of these resolutions be sent to his wife, to the various dental journals and to the daily papers.

The resolutions were submitted by the following committee, appointed at a recent special meeting: George A. Maxfield, C. T. Stockwell and N. Morgan.

### **Resolutions Passed by the Massachusetts Board of Registration in Dentistry.**

At a meeting of the Massachusetts Board of Registration in Dentistry the following resolutions were passed:

*Whereas*, In the sudden death of Dr. J. Searle Hurlbut, which occurred November 9, the Massachusetts Board of Registration in Dentistry mourns the loss of one of the original members, who for nine years of its existence served with exceptional distinction, four years of which he was president.

*Resolved*, That as an examiner he displayed remarkable wisdom, fairness and judgment and showed wonderful tact in his dealing with men.

*Resolved*, That in his contact with his associates on the board, his kindness of nature and generosity of heart will always be remembered with the warmest affection.

*Resolved*, That we extend our sincere and heartfelt sympathy to his bereaved widow in this sad affliction.

*Resolved*, That these resolutions be entered on the records and a copy be sent to the widow of the deceased and to the several dental journals for publication.

(Signed)

JOHN F. DOWSLEY,  
GEO. E. MITCHELL,  
THOS. J. BARRETT,  
DWIGHT M. CLAPP,  
GEO. A. MAXFIELD.

November 20, 1902.

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### **Dr. Harry Hubert Herren.**

Died at Pasadena, Cal., Nov. 27, 1902, Harry Hubert Herren, D.D.S., age twenty-eight years.

Dr. Herren was born in Smith County, Kansas, March 20, 1874, and moved to Pasadena, Cal., in 1886. He went to Chicago in 1896 to study dentistry in the Chicago College of Dental Surgery, from which he graduated in 1899. He was associated with Dr. Sayre Marshall, of Chicago,







## ITEMS OF INTEREST

for two years. While in college he devoted considerable time to the study of orthodontia, and was the first student of the Chicago college to demonstrate to his own class. He moved to Los Angeles and took up the practice of his chosen profession, making a specialty of orthodontia, and was associated with the dental department of the University of Southern California for two years, as an instructor in that branch, when his health compelled him to resign. He was one of the most active members of the Los Angeles Association of Dental Alumni, and was elected its president in 1901. He was also a member of the Southern California Dental Association. He was married in Chicago to Miss M. Victoria Ackerman, who survives him.

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### **Resolutions Adopted by the Los Angeles Association of Dental Alumni.**

At a regular meeting of the Los Angeles Association of Dental Alumni, held Tuesday evening, Dec. 2, 1902, the Committee on Resolutions upon the death of Dr. Harry Hubert Herren, submitted the following, which were adopted:

*Whereas*, It having pleased the Great Creator of the Universe to remove from earth's trials and sorrows our beloved friend and co-laborer, Harry Hubert Herren, a tried and faithful officer and member of this association, it is meet and fitting that we should place on record its appreciation of his many virtues as a friend and of his earnest and valued services to the profession he loved. In the prime of life, full of energy and earnestness in professional work, he clung to duty long after the germs of disease had numbered his days among us. Nay, his example of courage and cheerful submission inspire us along the pathway of life, and his manliness and his friendliness ever receive our most profound appreciation and respect; be it therefore

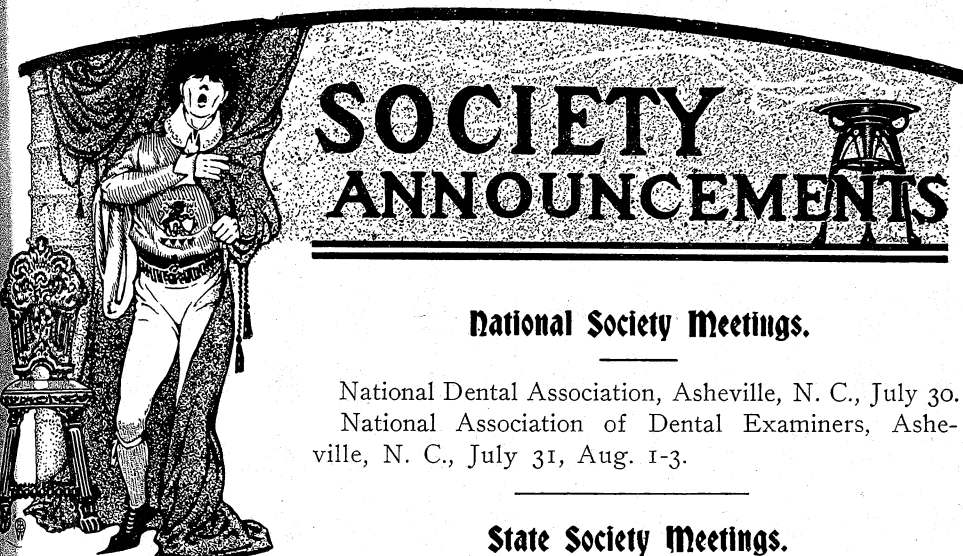
*Resolved*, That by this sad event our Association has lost one of its most honored members, and the dental profession an earnest and progressive professional gentleman, a genial and fast friend.

*Resolved*, That bowing to the will of Him who hath given and now has taken the spirit of our friend, freed from the dross of disease and suffering, and purified for the life beyond, we hereby express our heartfelt sympathy to his bereaved wife and aged parents; and be it further

*Resolved*, That a copy of these resolutions be spread upon the minutes of this Association, transmitted to his family, and published in the dental journals.

EDGAR PALMER,  
W. R. HOLIDAY,  
H. D. REQUE.





### **National Society Meetings.**

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National Dental Association, Asheville, N. C., July 30.  
National Association of Dental Examiners, Asheville, N. C., July 31, Aug. 1-3.

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### **State Society Meetings.**

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California State Dental Society, San Francisco, June.  
Colorado State Dental Association, Denver, June 16, 17, 18.  
Connecticut State Dental Association, Hartford, April 21, 22.  
Florida State Dental Society, Seabreeze Beach, May 27.  
Georgia State Dental Society, Tallulah Falls, June 9.  
Idaho State Dental Society, Boise City, June 9.  
Maryland State Dental Association, Baltimore, Jan. 18.  
Minnesota State Dental Association, Minneapolis, Sept. 1.  
Mississippi Dental Association, Vicksburg, May 21.  
Missouri State Dental Association, Kansas City, May.  
Nebraska State Dental Society, Lincoln, May 18.  
New Jersey State Dental Society, Asbury Park, July 15, 16, 17.  
New York State Dental Society, Albany, May 13, 14.  
Ohio State Dental Society, Columbus, Dec. 1, 2, 3.  
Rhode Island Dental Society, Providence, Jan. 13.  
Tennessee Dental Association, Chattanooga.  
Texas State Dental Association, Houston, May, 1903.  
Vermont State Dental Society, Burlington, March 18, 19, 20.

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### **Maryland State Dental Association.**

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The next meeting of the Maryland State Dental Association will be held in Baltimore on the 18th of January, 1903.

F. F. DREW, Sec'y.





### **Rhode Island Dental Society.**

The next meeting of the Rhode Island Dental Society will be held at Providence, Tuesday, Jan. 13.

Newport, R. I.

CLARENCE A. CARR, Sec'y.

### **Ohio State Dental Society.**

At the thirty-seventh annual meeting of the Ohio State Dental Society, the following officers were elected for 1903: President, J. B. Beauman, Columbia; first vice-president, J. F. Stephan, Cleveland; second vice-president, W. T. McLean, Cincinnati; secretary, S. D. Ruggles, Portsmouth; treasurer, C. I. Keely, Hamilton. The next annual meeting will be held at Columbus, Dec. 1, 2 and 3.

### **Los Angeles Association of Dental Alumni.**

The Los Angeles Association of Dental Alumni met at the office of Dr. O. P. Roller and elected the following officers for 1903: J. H. Moody, president; H. D. Reque, vice-president; G. Maurice Crow, secretary and treasurer; J. F. Cook, corresponding secretary; A. T. Covert, board of directors. The Association meets the first Tuesday of each month.

Los Angeles, Cal.

J. F. Cook, Cor. Sec'y.

### **Eastern Dental Society; City of New York.**

The Eastern Dental Society of the City of New York meets the first Thursday of each month at No. 235 East Broadway, New York City.

JOSEPH HARVITT, D.D.S., President.

D. J. MARYSON, D.D.S., Sec'y.

